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TREATMENT OF FRACTURES

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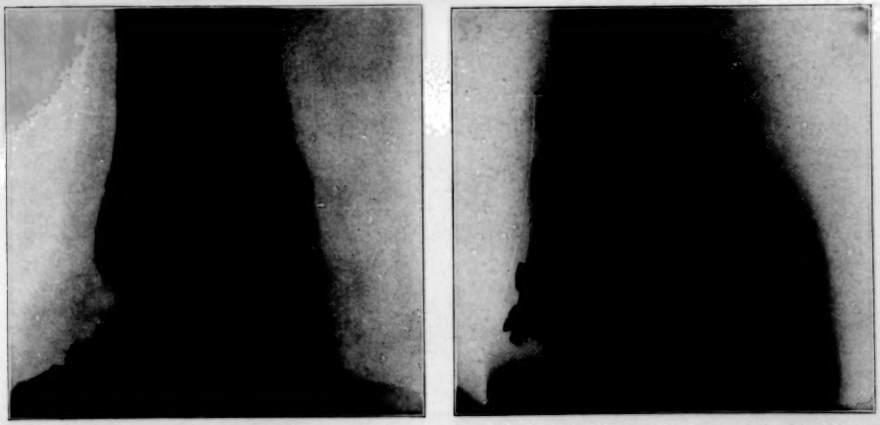
CHICAGO

It is unnecessary to call attention to the great frequency of fractures. As all are aware, they form in nearly all communities a large and important part of the work of everyone doing general practice. There is no class of cases, the management of which is so fraught with danger to both the reputation and the purse of the physician as is that of fractures. The subject, therefore, is one worthy of our most careful consideration, not only for the good of the patient, but for our own welfare as well. Another reason that the subject will bear reviewing at this time is because the people are becoming familiar with the appearances of fractures as shown by the *x*-ray, and are demanding better anatomic results in their treatment. People with fractures are no longer satisfied with a result which simply permits them to get out and around with from 1 to 3 inches of shortening due to overlapping of the fragments. They want to see an *x*-ray picture so that they can know that the ends of the bone are in apposition and if, after discharge, patients find the ends not in apposition, they must know why.

Physicians themselves are largely responsible for this because they do not more fully explain to the patients about their fractures. When a bone has been severely fractured it is not always possible for it to recover fully, yet this fact is not explained sufficiently to the patient and he is too frequently led to believe that a perfect restoration to the normal can take place. This is a mistake. On the other hand, we all know that the results obtained in the treatment of fractures in many cases might be improved.

DIAGNOSIS

Medicine has improved in other lines; why should it not improve in the treatment of fractures? The one thing which, more than any other, has led us to improved technic in the treatment of fractures undoubtedly has been the use of the *x*-ray. This has not only shown us the existence of marked deformity which could not be recognized by other methods of examination, but it has also shown us the existence of fractures which, without its use, would have remained undiscovered. Many injuries in the neighborhood of joints, and even to the long bones, which were thought to be simply sprains or bruises are found, on examination by means of the *x*-ray, to be linear fractures either extending along the shaft of the bone or frequently into the neighboring joint. The importance of recognizing and treating such a case as one of fracture rather than as one of sprain is apparent to all, for, while a sprain might best be treated by movements and massage, a fracture would require prolonged immobilization.



Figs. 1 and 2.—Lateral and front views of results of plating a Pott's fracture in a tabetic. Received April, 1911, three months after accident. No union whatever. Fracture plated April, 1911. Pictures taken Oct. 2, 1911. Good union. Patient walking without inconvenience.

Fig. 3.—Fracture of femur; junction of middle and lower third, Oct. 30, 1911.

Fig. 4.—Same as Figure 3, taken Nov. 22, 1911, three weeks after plating.

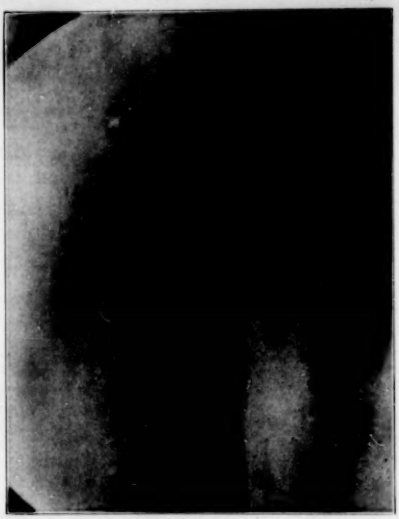


Fig. 6.—Same as Figure 5. Dec. 4, 1911, at the end of three months' treatment with extension casts, etc. No union. Patient now consented to operation.

I am well aware that the use of the *x*-ray in routine practice outside of a well-equipped hospital is perhaps inpracticable or even impossible, but that does not mean that one should not profit by what others have learned by the use of the *x*-ray.

X-ray plates and pictures are now accessible to all and there is no excuse for one not familiarizing himself with what these pictures have taught us. While I believe that the *x*-ray should be used in practically every case of fracture or probable fracture, yet I do not believe that one should be so tied to the *x*-ray as to neglect all other means of diagnosis.

A careful study of injuries by means of the *x*-ray shows us what may occur and what to expect in certain classes of injuries, or rather what particular injury to expect from the application of force in a definite manner.

Having become familiar with the results of the application of force and with the physical evidences of these results in particular cases, one is able to predict the

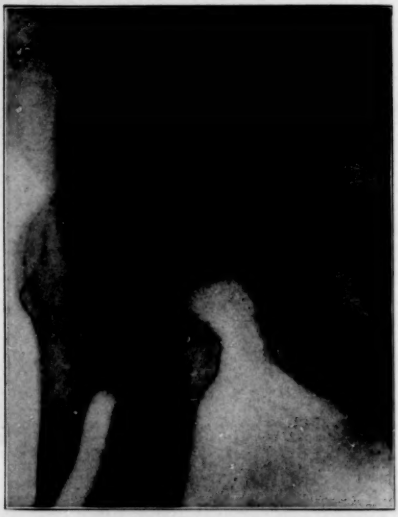


Fig. 5.—Intertrochanteric fracture of femur, showing position of fragments after best adjustment possible. Traction with Lemon-Mueller apparatus. Patient declined operation.

Fig. 7.—Same as Figures 5 and 6, after plating.

Fig. 8.—Bad compound comminuted fracture of leg, 3 inches above ankle. Great loss of soft parts and loss of 3 inches of tibia. Picture taken July 19, 1911, soon after accident.

Fig. 9.—Same as Figure 8. Taken July 25, 1911. Three inches of fibula transplanted to tibia and plated in position. Plates were left exposed on account of lack of soft parts to cover them.

Fig. 10.—Same as Figures 8 and 9. Taken March 1, 1912. Plates removed. Solid union of tibia by means of transplanted fibula. Reformation of fibula. Wound entirely healed.

character of the injury from his knowledge of these facts with a considerable degree of certainty even without the use of the *x*-ray. An accurate history of the manner in which an injury was received is of great importance, therefore, in the diagnosis and should be inquired into very carefully; and if the patient is able to give the manner in which the force was applied the damage done can often be predicted with considerable precision. Thus, knowing exactly what to look for materially facilitates the making of a diagnosis. One should not be too hasty in making a diagnosis from a single *x*-ray picture alone. It requires considerable practice to interpret *x*-ray pictures correctly. It should be remembered that *x*-rays are only shadows and indicate space of but two dimensions; consequently no perspective is shown in the ordinary picture. In order to show space of three dimensions it is necessary to take at least two pictures of the part in different planes, and, unless this be done, many errors will be made in the interpretation of *x*-ray pictures.

TREATMENT

If displacement of the fragments is present the best thing to be done, of course, is to bring about a perfect reduction or adjustment of the ends of the bone. Formerly it was frequently impossible to determine whether a perfect readjustment of the ends of the bone had been accomplished or not; but now, by the use of the *x*-ray,

Fig. 11.—Circumferential wiring of transverse fracture of patella.

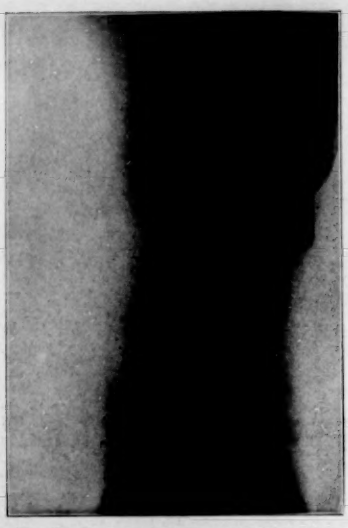


Fig. 12.—Compound fracture of both bones of forearm with loss of soft parts; wound treated with tincture of iodin. Picture taken July 10, 1911, soon after fracture.

Fig. 13.—Same as Figure 12, taken July 18, 1911, after plating. Primary union. Perfect result. Plates remain in.

Fig. 14.—Fracture of both bones of leg about the middle. Picture taken Oct. 3, 1911, three months after injury. No union.

Fig. 15.—Same as Figure 13. Taken Nov. 25, 1911, after plating.

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we are able to know that this has or has not been accomplished. When possible, an *x*-ray examination should be made in every case after the parts have been adjusted in order to see if the adjustment has been perfect. This is the only way in which one can be certain. When perfect reduction has been secured and the parts placed in a suitable fixation dressing, as, for instance, a plaster-of-Paris cast, it should not be forgotten that the ends of the bone may not remain in apposition, but may again become displaced and, unless the case be constantly watched, unfortunate results may occur. Thus a cast which is perfectly snug and tight when it is put on may become loose and too large by reason of the shrinkage which may take place in the parts as the swelling subsides. Constant vigilance is the price of good results in the treatment of fractures. In many cases it is found to be impossible to secure a perfect reduction of the fragments. The question, then, immediately presents itself as to the cause of the inability to bring about the reduction. In fractures of the long bone the most frequent cause of the inability to bring the ends of the bone in apposition is the interposition of some of the soft tissues between the ends of the bone. There may be a distinct layer of fascia or muscle lying between the ends of the bones which cannot be dislodged, or some of the sharp spiculæ may catch in the soft parts and thus prevent the fractured end from being moved into place. Again, the interposition of loose or detached pieces of bone between the fractured ends may interfere with reduction.

In certain fractures of some of the spongy bones, or of the epiphyses of some of the long bones, reduction may be impossible owing to the impaction which exists. When reduction is impossible, from any cause, the question of an open operation arises.

Formerly the opening up of a fracture was looked on as a very serious procedure and one fraught with much danger. To-day, however, the operation is looked on in an entirely different light owing to our improved methods of technic. In fact, the open operation in the treatment of irreducible fractures is now considered to be the only proper treatment in all cases in which there is no contraindication to operation. As perfect reduction and retention of fractures of the long bones is found to be the exception rather than the rule, and as perfect functional results are to be expected only when normal anatomic relations have been restored, many surgeons consider the open or operative treatment of all fractures of this class as the method of choice. In other words, they maintain that practically all fractures of this class should be operated on at once and the ends of the bones placed in accurate apposition and maintained by means of some mechanical device. Formerly silver wire was used to maintain the fragments in apposition, but this was found to be very unsatisfactory.

Without mentioning all the various mechanical devices that have been used for this purpose we will come at once to the means most commonly used to-day, namely, the so-called Lane plate.

Lane's plates are pieces of metal of various sizes and shapes, usually steel, and perforated so that they may be applied to the fractured ends of the bones and screwed firmly thereto, so as to hold the ends solidly in accurate apposition. There is no question but what the Lane plate, nicely applied, forms a very perfect mechanical union of the fractured ends and, when uninterrupted healing takes place, the end-results are very much better than those usually obtained by the ordinary methods of treatment. If there were no dangers and no bad results connected with this method of treatment it would certainly seem to be ideal, but it is found that infection may take place, and infection in compound fractures—for an openly treated fracture is nothing more than a compound fracture—is always a serious condition, and has frequently led to loss of a limb or even of a life. Again, it has frequently been necessary to remove a plate even after the fracture has united, on account of the presence of a persistent suppurating sinus. If these objections could be removed, or reduced to a minimum, there is no doubt but what the method would and should find very wide application. We know that the dangers of primary wound infection in other operations has been practically eliminated by proper operative technic, and if that can be done in other parts of the body there is no reason why it cannot be done in operations on bones.

Experience has fully confirmed this conclusion. The technic of this class of bone work has been most carefully worked out by Lane, of London, and anyone who will conscientiously follow his exceedingly careful, painstaking technic will be rewarded by the same good results which he obtains. It has been found by experience that the open method of treating fractures requires the highest degree of technical skill, for a freshly fractured bone when opened up is very much more likely to become infected than almost any other tissue in the body.

The technic of opening the peritoneum is a simple matter compared to opening up a fresh fracture. Not only must the surgical technic reach the highest state of perfection, but one must have suitable instruments with which to work. There is no class of operations in which the results depend so much on having suitable instruments with which to work as in the open treatment of fractures. If not fully prepared it were much better not to undertake the work. Notwithstanding these real difficulties in the way of success, the open method of treating fractures has become well established. The results obtained in suitable cases are so much better than those had under the old methods that they cannot be ignored, and if one hopes to secure for his patients such good results he must prepare himself to do this kind of work.

It is absolutely essential to success that nothing but sterile instruments shall be permitted to come in contact with the wound, not even the gloved finger or anything which has been touched by the gloved hand. Until one has reached this degree of perfection in one's technic one cannot hope to attain success in this line of work. These facts cannot be too strongly emphasized. Of all the devices that have been proposed for this kind of work there is none which fulfils the indication so well as the metal plate and screws. The plate finds a useful field, not only in simple fractures, but also in compound fractures and in the latter class of cases, even when infection or suppuration is already present. As is well known, compound fractures which are suppurating are very hard to hold in place on account of the constant change of dressing which is necessary.

By adjusting the fragments and putting on a solid metal plate which will hold the ends firmly together, the care of the case is very much facilitated and the recovery hastened. Of course the plate will have to be removed in this class of cases when union of the bone has taken place, but this is a matter of no importance compared to the great good which the plate accomplishes.

In compound fractures which are not already infected, the plates may be used as though the fracture were a

simple one from the start, and this brings up the question of the best method of treating compound fractures when they are first seen and before they are infected. It was formerly thought to be necessary to shave the parts and then to scrub thoroughly with soap and water and alcohol, and bichlorid, etc.; but now we know that this is about the best way of infecting the wound that could be employed. The washing and scrubbing simply washes dirt into the wound and injures the vitality of the cells already exposed, thus diminishing their resistance and does not get rid of the germs which are present. It has been found to be much better, in this class of cases, not to attempt to do any washing and, above all, not to apply any water or soap to the parts. If gross dirt can be seen in the wound it should be picked or wiped out and the whole area thoroughly painted with tincture of iodin. If the ends of the bones have been exposed they should be wiped off and painted with the iodin before being returned. After thoroughly painting with the iodin, and allowing it to dry, the parts should be carefully adjusted as well as possible and a dressing and splints applied. If, after a few days, it is found that the wound has not become infected a plate may be applied, if necessary, through the compound opening, with every probability that the wound will heal by first intention, just as though the fracture had been a simple one from the beginning.

Too much praise cannot be given the iodin method when it is properly used, as it is without doubt the simplest and the most valuable method of preparing the skin with which we are acquainted.

At the Alexian Brothers Hospital, where we have a large emergency service and hence a great many compound fractures of all kinds, we have found the use of the tincture of iodin, in the manner mentioned, of the greatest value and it is the regulation method of treating this class of cases.

While we think that the metal plate, as a rule, is the best mechanical device to use in the open treatment of fractures, there are some exceptions to the rule. Thus, in fractures of the patella, which should always be operated on if there is much separation of the fragments, we believe that the patella is best held in place by putting a wire circumferentially around the fragments and twisting it up tightly. The patella is so superficial, and it is so necessary to have a good smooth surface on which to kneel, that the use of a plate in this location does not seem desirable. Likewise, in fracture of the olecranon the passage of a wire around the fragment through the triceps tendon and then through the ulna—twisting it up tightly—is better, as a rule, than the use of a screw in the detached fragment which is so small and in the child not completely ossified.

Pott's fractures, as a rule, are easily reduced and maintained without open treatment, but occasionally some mechanical device is necessary, and then a plate is the best thing to use, notwithstanding the fact that the bone is very superficial. It is better to use a plate and remove it later if it give rise to any trouble, as its removal is such a simple matter. The use of a suitable plate in this location, however, contrary to expectations perhaps seldom causes any annoyance. In those fractures accompanied by considerable overlapping, such as fractures of the shaft of the femur or spiral fractures of the tibia, especially in stout, heavy men, it is very desirable to have some mechanical means of producing steady, strong traction and in old ununited fractures of these bones some such traction device is essential to good work. The best traction device for this purpose with which I am acquainted is the Lemon-Mueller apparatus. It is a heavy metal frame in which the patient can be placed and anesthetized. The legs of the patient can be placed in any position of abduction, rotation, etc., and any degree of extension can be made and maintained for any length of time. By the use of this apparatus the open treatment of all fractures of the femur is very much facilitated. The patient is fixed in the apparatus and anesthetized. A free incision is made exposing the fracture, traction made until the ends of the bones are opposite, when, by adjustment, they are easily brought into perfect apposition. The plate is then applied, the wound closed and the leg and pelvis inclosed in a plaster-of-Paris cast before the patient is removed from the apparatus. The patient is so supported in the apparatus that a cast can be applied to almost any part of the body. One of the greatest advantages of the apparatus is the ease with which these fractures can be operated on with the least possible manipulation of the parts. Fractures of the neck of the femur have always been looked on as one of the most discouraging and unsatisfactory fractures that we are called on to treat. Nonunion is the rule and, in fact, the possibility of bony union for a long time was absolutely denied. While the possibility of bony union has been established, it must be acknowledged that it is a great exception under the ordinary methods of treatment as at present carried out. Of course allowance must be made for the fact that many of these cases occur in patients who are so old and so enfeebled that no active treatment is possible, and they often succumb from shock or simply as a result of the confinement. Fractures of the neck, however, do occur in persons with sufficient vitality to permit of some plan of active treatment being carried out, and in these cases, under present methods of treatments, we ought to get bony union as a rule.

The Whitman method of traction and fixation in marked abduction is undoubtedly the most important improvement which has been made in the non-operative treatment of these cases, and next in importance is the Maxwell method of longitudinal and transverse traction. Even these improved methods have not been as successful as might be desired. Hence the open method has been extended to these cases with the hope of bringing about a more certain and speedy bony union.

It is not a new idea, for it was proposed some years ago, to nail the detached portion of the neck, and the operation was carried out a number of times. Operative technic of bone surgery, however, had not reached its present state of development at that time. Hence the operation was not widely employed. Our present technic has placed the operation on a sound basis and it is more frequently made use of. Formerly the attempt was made to pass the nails through the trochanter and neck and into the head without exposing the parts. This was found to be very unsatisfactory, as it was impossible to tell whether the head was in proper place or whether it had been reached by the nail or not. At present the nails are inserted by the open method. The joint is opened freely by an anterior or lateral incision. Traction is made until the head and neck are in perfect apposition, when the nails are driven in firmly, fixing the head in place. It is better to use two nails so as to prevent rotation of the head. The wound is then closed and a suitable cast applied. Of course a drill is used to make a hole through the trochanter and neck before driving in the nails, so as not to split the bone.

The extension apparatus, already mentioned, will be found of inestimable value in this operation. It is impossible to take up in detail all the special fractures, but sufficient has been said, I think, to show that an era of better treatment of fractures is at hand and that it behooves all of us who expect to treat these cases, not only to familiarize ourselves with the methods, but also to perfect ourselves in the technic if we would hope to secure the results for our patients which they are certain to demand.

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RESULTS OF ANTITYPHOID VACCINATION IN THE ARMY IN 1911, AND ITS SUITABILITY FOR USE IN CIVIL COMMUNITIES *

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The Medical Corps of the Army has been endeavoring to protect large numbers of individuals against typhoid fever by means of prophylactic vaccination with killed bacterial cultures. In the Army, during times of peace, our posts are like small communities, with their own water-supplies, sewerage systems and organized administration of community affairs. So long as the troops are in garrison they have no more disease than exists in the adjoining communities. We are, however, not content with this condition of safety, but must descend from our fastnesses, and in the absence of real war, engage in mimic battles and campaigns. From the purely military point of view these movements are maneuvers, not war, but from the standpoint of health and disease there exists the same real danger as in actual war.

As the Medical Corps is charged with the preservation of the health of the Army, we have endeavored to protect it against typhoid, not merely in garrison, but also in the field, in campaign and on the march. The principles of prophylaxis applicable to cities fail us utterly, and our main reliance has come to be the protection of each and every individual composing the Army. The mere question of numbers is of little moment since whole nations have been immunized against smallpox, and we think little of the number of persons involved.

Another question is of more importance, whether vaccination against typhoid fever actually protects against the disease, and whether it can be accomplished without danger. It is this question that we believe has at last been settled in such a way and on such a scale as to leave no doubt in the mind of any reasoning person.

Our knowledge of vaccination against typhoid fever begins with the work of Pfeiffer and Kolle,[3] who, in 1896, immunized two men and made complete and comprehensive studies of the blood-changes following inoculation with killed cultures, showing, as far as laboratory methods permit, the identity of the immunity following an attack of the disease, and the artificial immunity produced by inoculation. At about the same time, Wright,[4] of London, inoculated two men with killed typhoid bacilli, but his main work was published in the following year, 1897, when he reported the successful immunization of seventeen persons. In 1898, he continued the work in India, where 4,000 British soldiers were vaccinated. On the outbreak of the Boer War in 1900, he, together with Leishman of the Royal Army Medical Corps, undertook the preparation of the vaccine and supervision of the inoculation of the British troops, of whom some 100,000 were treated. In India, where it was first used on an extensive scale, the results obtained were quite encouraging, but for various reasons the same procedure in South Africa was not as satisfactory as had been anticipated. Indeed, considerable opposition was aroused and there were not a few who contended that, when carried out in an endemic area, vaccination did more harm than good by virtue of a mysterious negative phase which for a time rendered the vaccinated more susceptible to infection than the untreated. It is very doubtful if a negative phase of such importance ever existed. Indeed, all our recent experience has failed to show a negative phase of clinical importance.

A few years later, in 1904, the Germans in the Herero campaign in southern West Africa, resorted to the use of prophylactic vaccination on the advice of Prof. Robert Koch. Vaccination was voluntary and only about one-half of the command, 7,287 men, availed themselves of it. The results, while good, fell short of expectations. There was, roughly speaking, only one-half as much disease among the protected as among the unprotected, while the number of deaths was reduced to one-quarter of the number among the non-immunized.

The second period in the history of antityphoid vaccination begins with the work of Sir William B. Leishman, in 1904. He took up the subject when Wright left the Army, and has remained in charge up to the present time. In his Harben lecture[5] of 1910 he explains, in a measure, the lack of success in earlier years, by showing that a vaccine may be made less efficient by the use of too great heat in killing the bacilli, and by stating his belief that much of the vaccine used in South Africa was damaged in its preparation by overheating. Since the year 1904, an improved vaccine has been used among the British troops in India in ever-increasing quantities with uniformly satisfactory results. They have vaccinated more than 100,000 men without any untoward results. The most recent figures from India, reported by Col. R. H. Firth,[6] cover the first six months of the year 1911.

> "In that period there were, in all India, 112 cases of typhoid with six deaths, among the protected men, and forty-five cases with four deaths among the non-protected. The protected population was 63,624 persons, and the non-protected, 8,481. From these data we find the case incidence per thousand among the protected to be 1.7 and among the non-protected to be 5.3. If we take the mortality and express it as per million, then the ratio for the protected is 94, and for the non-protected, 471. That is to say, the incidence for typhoid for the first half year was roughly five times as great among the non-protected as among the protected."

Our own experience with antityphoid vaccination began in 1908, and early in 1909 we vaccinated all who volunteered. In 1909 we immunized 1,887 persons, in 1910, 16,073. For 1911, the figures are not yet com-

* Read before the Buffalo, N. Y., Medical Union, Jan. 24, 1912. Published with the permission of the Surgeon-General, U. S. Army. The introductory portion of this address is omitted from THE JOURNAL, but appears in full in the author's reprints. In it Major Russell discusses the general subject of the prophylaxis of typhoid fever.

3. Pfeiffer and Kolle: Deutsch. med. Wchnschr., 1896, xxii, 735.
4. Wright: Lancet, London, Sept. 19, 1896, p. 807; Brit. Med. Jour., Jan. 30, 1897, p. 16.
5. Leishman, W. B.: Jour. Roy. Inst. Pub. Health, London, 1910, xviii, 394.
6. Firth, R. H.: Jour. Roy. Army Med. Corps, London, 1911, xvii, 495.

plete, but are estimated at over 80,000, making the total number of persons immunized approximately 100,000. Over 80 per cent. of these have received the full course of three doses. The vaccine has been prepared in the laboratory of the Army Medical School, and the immunization has been carried out without accidents. In 1910, we shipped to various posts in the service and to other institutions, 75,843 c.c., and in 1911, 312,101 c.c.

The preparation of the vaccine is comparatively simple. An avirulent culture of the typhoid bacillus is grown for twenty-four hours on agar, washed off in normal salt solution, standardized by counting the bacilli, killed by heating to 55 C. for one hour and then 0.25 per cent. of tricresol is added as a matter of safety. Our object has been to immunize with a bacillus which has been changed as little as possible by heat or chemicals in the preparation of the vaccine, and for this reason very little work has been done with extracts, non-toxic portions, or the many modifications which have been suggested.

Up to the present time, a single strain of the bacillus has been used, not with the idea that that was the best method, but in order to simplify our problem as much as possible, and in this we have followed the example of the English. In preliminary experiments it was found that inoculations with this culture gave rise to the production of immune bodies in large quantities and produced, according to laboratory standards, a high degree of immunity, without, at the same time, causing severe general or local reactions.

	Number of Doses	Reaction, Absent	Reaction, Mild	Reaction, Moderate	Reaction, Severe
First dose	45,680	68.2%	28.9%	2.4%	0.3%
Second dose ..	44,321	71.3%	25.7%	2.6%	0.2%
Third dose ...	38,902	78.0%	20.3%	1.5%	0.1%

Had our results with the vaccine been poor or only fair the next step would naturally have been the search for a better one. As the problem has developed, however, we realized that the results were extraordinarily good, almost incredible in fact, and in view of this we have hesitated to alter the vaccine in any way. There are, no doubt, some improvements possible, but we have no real reason for dissatisfaction with the vaccine used at present.

In preparing a vaccine undue complexity must be avoided, as it is essential to have an adequate supply promptly when needed. It does not keep indefinitely and cannot, therefore, be made up in large quantities and stored for use in emergencies. To be of value it must admit of preparation on short notice, and this is particularly necessary in the military service where every mobilization, as the Texas maneuvers, comes as a surprise.

The vaccine is injected into the subcutaneous connective tissue (not into the muscles or into the skin) of the arm, at the level of the deltoid insertion, the necessary skin sterilization having been accomplished by tincture of iodin. Intramuscular injections should be avoided since the rapid absorption of the bacteria may lead to unpleasant anaphylactic general reactions and to unnecessary pain on movement.

Three doses are given at ten-day intervals: the first contains 500 million bacteria, the second and third 1 billion each. As a rule, there is a local reaction consisting of a red and tender area about the size of the palm of the hand, which usually subsides within forty-eight hours. The general reaction, when present, shows itself by malaise, headache, fever, occasional chills, quite rarely by nausea, vomiting or diarrhea, and in exceptional instances, by transient albuminuria. The general reactions in 128,903 doses have been tabulated and show that the severe type of reaction occurs in only one to three persons per thousand.

As the occasional severe reactions are followed by no serious trouble their occurrence does not constitute a valid objection to the use of the prophylactic. In children or young people they rarely appear. We have always insisted, however, that no one, not in good health at the time, should be vaccinated, in order to avoid the vaccination of persons in the incubation stage of typhoid and other diseases.

The recent mobilization of troops in Texas has afforded an exceptional opportunity to test the method of individual protection by means of prophylactic vaccination. Large numbers of troops have been vaccinated by the English in South Africa and in India, and in the United States during the past two years, but this is the first time in the history of the subject that vaccination against typhoid has been compulsory.

The vaccination of volunteers had been in progress for over two years and a small number of men had already been protected before orders for mobilization were issued. On arrival at the maneuver camp all others were vaccinated as rapidly as vaccine could be prepared and shipped to Texas. In about one month from the beginning of the movement, the immunization of the entire command was completed. The whole program was carried out under the direction of the chief surgeon, Colonel Birmingham, promptly and systematically and without protest, either in or out of the service, as the idea was not new to either officers or men, since some one had received the treatment voluntarily at every post in the Army during our preliminary campaign of education.

An unusual feature of the Texas maneuvers was the large number of recruits forwarded to the front from New York, St. Louis and Denver, as rapidly as they could be enlisted and equipped; on arrival they were segregated in quarantine camps, to prevent the introduction of contagious diseases into the command, and advantage was taken of this period of detention to administer the typhoid prophylactic. Many cases of measles and mumps developed among the newly enlisted men, but no typhoid fever occurred. At San Antonio the three diseases causing the highest non-effective rate were venereal diseases (4.1 per thousand), and measles and mumps (3.1 per thousand). Typhoid fever was a negligible factor in the health of the division. One case occurred in the person of a hospital corps man who developed symptoms of fever before the third dose of vaccine was administered; the disease was mild, and was considered influenza until a blood-culture revealed the true diagnosis. One other case occurred in camp, the patient being a civilian, employed as a teamster by the quartermaster; this man, together with other civil employees of the Army, had been given an opportunity to be vaccinated, but had refused, and after this experience the quartermaster declined to employ men who refused protection by vaccination.

In addition to the main divisional camp at San Antonio, smaller camps occupied by separate brigades were established at Galveston, Tex., and at San Diego, Cal. At Galveston there were about 4,500 persons, and at San Diego about 3,000. No cases of typhoid were reported from Galveston and only one from San Diego.

Other detachments, smaller in size, were scattered along the border and among them there was no typhoid.

Colonel Kean,[7] in an article on the sanitary record of the Maneuver Division, makes the following statement:

> The immense advance in camp sanitation and particularly the value of this protective measure can be estimated by comparing the typhoid incidence of this camp with that of the Second Division, Seventh Army Corps, which was organized at Jacksonville, Fla., about June 1, 1898, and remained there in camp until October; some of the regiments leaving in September. This division was not conspicuously unfortunate in its typhoid record for that time, and is selected because of the close similarity of its conditions of service to those of the Maneuver Division. The two divisions were encamped in nearly the same latitude and for about the same length of time, each had a good camp site and an artesian water-supply of unimpeachable purity. While the period in camp of the Second Division, Seventh Army Corps was later in the year, the number of men involved is larger for the Maneuver Division. The accompanying table referring to the former is taken from the celebrated "Report on Typhoid Fever in U. S. Military Camps in the Spanish War," by Reed, Vaughan and Shakespeare, Vol. 1, page 609.

1898

TABLE SHOWING FOR THE REGIMENTS OF THE SECOND DIVISION OF THE SEVENTH ARMY CORPS, ASSEMBLED AT JACKSONVILLE, FLA., THE MORTALITY AND MORBIDITY FROM TYPHOID FEVER

Regiments	Mean Strength	Cases of Typhoid Fever		Deaths from Typhoid Fever	Deaths from All Diseases
		Certain	Certain and Probable		
Second Illinois	1,095	253	341	18	22
First North Carolina	1,164	147	227	16	26
Second New Jersey	1,153	185	318	29	32
First Wisconsin	1,232	209	311	46	48
Fiftieth Iowa	1,097	164	253	33	33
Ninth Illinois	1,288	153	248	18	28
Second Virginia	1,220	105	152	17	20
Fourth Virginia	1,274	135	231	21	28
Forty-Ninth Iowa	1,236	378	612	50	50
Total	10,759	1,729	2,693	248	281

1911

TABLE SHOWING FOR THE ORGANIZATIONS COMPOSING THE MANEUVER DIVISION AT SAN ANTONIO, TEXAS, THE MORBIDITY AND MORTALITY FROM TYPHOID FEVER, MARCH 10 TO JULY 10, 1911

Organization	Mean Strength June	Cases of Typhoid Certain and Probable	Deaths from Typhoid Fever	Deaths from All Diseases
Eleventh infantry	924	..	..	..
Fifteenth infantry	969	..	..	2
Eighteenth infantry	1,022	..	..	..
Thirteenth infantry	929	..	..	..
Twenty-second infantry	1,033	..	..	..
Tenth infantry	1,016	..	..	1
Seventeenth infantry	954	..	..	..
Twenty-eighth infantry	951	..	..	..
Third field artillery	847	..	..	2
Fourth field artillery	741	..	..	1
Engineer battalion	536	..	..	1
Signal corps	197	..	..	..
Ninth cavalry	744	..	..	..
Eleventh cavalry	1,143	..	..	3
Sanitary troops	795	1	..	1
Total	12,801	1	0	11

The troops remained in their several camps from March 10, 1911, to the middle of July, a period of approximately four months, and during that time there were two cases of typhoid with no deaths.

As the divisional camp at San Antonio was the largest and best known of the maneuver camps the interest of the public has centered on it. Any one who visited it or who has kept in touch with the improvements in field sanitation knows that all the elements which tend to affect the health of men under canvas were controlled better than they ever have been before. The sanitary difficulties of camp life arise mainly from the lack of sewer- and water-systems and the necessity of developing a scavenger system. Another source of great trouble arises from the necessity of living on the same ground and in close contact with innumerable animals; at San Antonio there were 6,000 horses and mules in temporary corrals, and on picket lines scattered here and there among the troops. The arrangement of a cavalry or horse artillery camp brings a line of horses in close proximity to each row of tents; the necessary horses of each infantry regiment or ambulance company are picketed close to the troops to insure their proper care.

It is a simple matter to pipe a water-supply into camp, but troublesome to dispose of the wastes; and many expedients have been devised to overcome such difficulties. The camp at San Antonio is noteworthy as exemplifying the best system so far devised for the disposal of camp wastes. One of the lessons taught by the Spanish War was the importance of the house-fly in the spread of intestinal diseases. The fly is dangerous merely as a carrier of infectious material from the latrines to the food-supplies and it remains a harmless nuisance, no matter how numerous, if it has access to neither of these things. Nevertheless, the simplest way of circumventing the fly is to exterminate it by destroying its breeding-places and this was done most thoroughly at San Antonio. As its principal breeding-place is in stable-wastes, arrangements were made in advance for carting all manure to a dumping ground about one mile from camp, where it was burned under the supervision of enlisted men of the medical department. Flies, however, will breed not only in manure, but also in soil soaked with excreta and other organic matter, and the destruction of ova and larvæ was accomplished by frequently burning over the picket lines with crude oil and refuse forage. As a result, the number of flies, at first rather large, tended constantly to diminish.

No single measure, however good, is sufficient in dealing with this ubiquitous pest; kitchens and mess tents were screened, and kitchen wastes, both liquid and solid, were disposed of in what has come to be known as the kitchen crematory. This is merely a pit 1 foot deep, 2½ feet wide and 4½ feet long, walled up for 1 foot and lined with a layer of cobble-stones. In this simple contrivance all the liquid and solid wastes, except the bath and wash water, can be consumed.

The disposal of excreta in camps[8] in recent years, more especially since the Spanish War, has passed through three stages, the latrine pit, the Reed trough, with excavator attachment, and the so-called incinerator. In the old latrine pit no attempt was made to treat the excreta, except perhaps by the desultory application of a little earth or lime, and this system has been justly

7. Kean: THE JOURNAL A. M. A., Aug. 26, 1911, p. 713.

8. Ann. Report of the Surgeon-General, U. S. Army, 1911.

condemned and cast aside. The Reed trough, with its leaky excavator, long haul, attendant stream of soil pollution and enforced abandonment in freezing weather, has also failed to meet the requirements. The incinerator, aside from the matter of expense and disagreeable odor is, on account of its weight and the delays attending its installation, impossible as a part of the equipment of a mobile army. In the camp at San Antonio the excreta were successfully disposed of by using a narrow latrine pit, 18 to 24 inches in width, covered by a tightly fitting wooden box with self-closing seat covers. The contents of the pit were sterilized daily by fire, using a gallon of crude oil sprinkled over a thin layer of hay for each burning and this was sufficient even after three months' constant use to rid the latrines of odor and flies.

No camp has ever been so free from nuisances and flies as this, and the sick-rate from all causes was low; consequently, there were those who questioned the true value of vaccination in preventing typhoid. The point is important and with the data at hand the answer should not be difficult.

There is no doubt but that the hygiene and health of the men received almost ideal care; the difficulty was, however, that the men were not confined to camp, but had liberty and opportunity to visit the neighboring cities of San Antonio and Galveston. Thousands spent more or less time in these cities, where they dined and lunched and drank and slept—in fact, became, for the time being, a part of the community. In Galveston, especially, where a ten minutes' ride carried one from the camp to the heart of the city, the number of men visiting town was large. The soldier always has a good appetite, and he drank and ate everywhere, in good restaurants and bad, in the numerous lunch-wagons and at street-corner stands. Fruits and pies and sweets in enormous quantities were purchased of hucksters lined up along the camp boundaries; they even invaded the company streets carrying their various sorts of indigestible and infectious products from tent to tent. The best kind of camp sanitation could not keep down typhoid in the presence of all these possible chances of infection, if typhoid existed to any extent among the local population.

During this period of four months there were reported to the health office forty-nine cases of typhoid with nineteen deaths among the civil population of the city of San Antonio, and in Galveston, 192 cases were recorded during the same period. These two cities can therefore serve as controls and indicate what might have happened to our troops in the absence of vaccination.

Aside from the sources of infection in the adjoining cities, we must believe that the men were also exposed to the influence of an unknown number of chronic bacillus-carriers among our own men. There is every reason to believe that among 18,000 men there were one or more carriers in each regiment, yet they spread no disease, and one of the most important conclusions to be drawn from our recent experience is that in vaccination we have the only effective protection against the elusive carrier.

Another experience which may help us in forming an opinion has been related by Major Lyster:[9] The Eleventh United States Cavalry participated in a military tournament in Nashville, Tenn., lasting ten days, and, on the return to Fort Oglethorpe, Ga., typhoid appeared and spread until ten cases had occurred. At this time only 165 of the command had been immunized. The post commander therefore took measures which resulted in the immunization of 736 persons in the regiment and of seventy civilians at the post. The epidemic promptly ceased on completion of the immunization and soon afterward the regiment, with the exception of one troop, left the post on a twenty-one-day march, going to Knoxville, Tenn., and return, some 300 miles. Major Lyster says:

> There was no attempt to boil or sterilize the drinking-water used on this march, the supply being from whatever was used locally. On the return of the command, after spending twenty-one days in a country where typhoid is prevalent practically throughout the year and living under war conditions, the sick report was stated by the commanding officer to have been *nil*. No subsequent cases of typhoid developed. While from the nature of the experiment the result is only presumptive evidence in favor of inoculation it cannot well be made conclusive for obvious reasons.

Viewed in the light of our recent experience in Texas and on the Mexican border, it is perfectly apparent that the regiment owed its freedom from typhoid to the prophylactic treatment it had received before the march began.

The duration of the immunity following vaccination still remains a subject for speculation. Colonel Firth[10] concluded from statistics recently collected in India that the degree of immunity begins to diminish between the second and third years after vaccination, and in order to maintain the troops in a maximum state of resistance he recommends reinoculation after two and one-half years. His tables also show that even after the fourth and fifth years considerable immunity remains, as the rate per thousand is roughly only one-fourth of that of unprotected troops. In our own service, the measure is of too recent introduction for any conclusions to be drawn. Up to the end of September, we had vaccinated 81,340 men, and among these only twelve cases of typhoid, with no deaths, had been reported. Since three doses are used in our service (in the English only two) of a somewhat different vaccine, we expect the protection to exceed that obtained in India.

The effect on the morbidity from this disease for the entire Army is now becoming apparent; the admission and death-rate for 1910 were the best as yet recorded, and in the year 1911 the number of admissions had fallen to one-quarter (from 2.4 pe. thousand to 0.6) of that of last year; there is also some improvement in the death-rate. There were only forty-five cases in the Army in the United States during 1911, and seven of these were contracted before enlistment or while on furlough. As this has been a year of unusual exposure this reduction in the amount of fever is a source of considerable satisfaction. The significance of this low rate appears when a comparison with preceding years is made; in 1909 there were 173 cases and sixteen deaths; in 1910, 143 cases and ten deaths, and in 1911, forty-five cases and eight deaths.

We are, therefore, justified in believing that under the conditions encountered in the Army, vaccination is harmless and efficient.

In civil life, the conditions are somewhat different, being, in many ways, simple compared to those in the Army. In cities, all the general principles of sanitation can be put in force and there may not be the same urgent reasons for universal vaccination as exist in the Army, yet there is no doubt but that vaccination would diminish greatly the amount of typhoid. There is no

9. Lyster: Mil. Surgeon, 1911, xxviii, 528.

10. Firth: Jour. Roy. Army Med. Corps, 1911, xvi, 589.

conflict, moreover, between vaccination and general sanitary reforms; each has its sphere and, perhaps, in the far distant future, when sanitation is perfect, there may be little necessity for vaccination; in the meantime, in this and the succeeding four or five generations most of the typhoid now occurring in our cities and country districts can be prevented by vaccination. All whose duty or profession brings them into contact with the sick should certainly be vaccinated. Those especially exposed, as travelers, campers, engineers, plumbers and workers in industrial villages, should also be treated. We have found that children bear the immunization rather better than adults, as it seldom interferes with their play. They should be immuized if living in a district where the typhoid-rate is high, or before leaving a healthy city for a summer vacation. Contacts in houses or familiies in which a case of typhoid has developed should be vaccinated if they are well and free from fever at the time; not that a dose of vaccine would do any real harm even were the patient in the incubation stage of the disease, but should typhoid fever follow immediately after vaccination it would tend to discredit the procedure in the eyes of the public. On the appearance of an epidemic outbreak those in the infected area who have not already had the disease should be protected. This has been done many times and there is no convincing reason for fearing a negative phase or condition of increased susceptibility. Cullinan,[11] in 1901, vaccinated 500 persons at the Richmond Asylum, during an epidemic lasting five months, and among these only 1.36 per cent. contracted the disease, and almost all of these were in the incubation stage at the time, while 14.9 per cent. of 114 uninoculated nurses were attacked.

Leishman has related the following experience bearing on this point:[12]

> To my mind, however, the most important evidence bearing on this question of the negative phase is to be sought, not in the laboratory but in actual practice; in other words, in a study of the evidence for and against any increased period of susceptibility to enteric fever in the case of men recently inoculated. I may say that, from a very early period, I felt that its dangers, if existent, must be trivial, for the following reason. At the time of the Maidstone epidemic, in 1897, a considerable number of inoculations were carried out by Sir A. E. Wright, Colonel Semple and myself on the attendants at the Barming Asylum, which at the time was heavily infected. Subsequent to our inoculations, which totalled about one hundred, other cases occurred, so that it was evident that our inoculations were done at a time when these attendants were still exposed to infection. The results of the inoculations in this instance were excellent, no case being recorded among the inoculated. Now here, if ever, we should have seen evidence of increased susceptibility if a negative phase was present in these attendants, inoculated as they were during the height of the epidemic; and, further, inoculated with doses of the vaccine considerably larger than are ever employed nowadays. Still no single case occurred, and I cannot help thinking that this points clearly in the direction of the safety of inoculating in the presence of the disease and is strong evidence that the dangers of a negative phase are more theoretical than real.

In this country, Richardson and Spooner[13] vaccinated 100 nurses in the Massachusetts General Hospital while there were typhoid cases in the wards, with the result that for the first year in the history of the institution there were no cases among the nurses or attendants. D. J. Davis, in Chicago, has had much the same experience, as has Lambert in the New York hospitals (personal communication). The same procedure has been carried out in many other hospitals and always with the same good results, and it is now proper to recognize that vaccination may be carried out in the presence of an epidemic. This has recently been done in Torrington, Conn., Guantanamo, Cuba, and several other places.

> "Torrington has a population of about 17,000 people. Early in September typhoid fever broke out, the cause of which has been traced to an infected water-supply. Two hundred and twenty-seven cases of typhoid were reported in September, fifty-four in October, and five in November, a total of 286 cases with twenty deaths, not including patients infected there and taken sick elsewhere. Of the fifty-nine patients taken sick in October and November nearly if not all of them were secondary cases. At the onset of the epidemic some of the physicians advocated typhoid vaccination and between three and four hundred inoculations were made. The cases were all carefully selected and no inoculations were given to persons with fever or any indication of ill health. The physicians report that the usual history was a slight chill and rise of temperature, 99 to 100 F., with indefinite aches in the back and limbs for about twelve hours, and local swelling and soreness at site of inoculation. Some had no reaction whatever, and only in a few cases were the individuals indisposed for two or three days. The usual technic was followed, the inoculations being given ten days apart. No cases of typhoid occurred among the vaccinated except one man who developed the fever after his second inoculation and ran a mild and very short case of typhoid. Forty-five of the eighty nurses were vaccinated, the others refused it. Two cases developed among the unvaccinated nurses. One physician writes that at the outbreak of the epidemic he inoculated himself, wife and two children, and added, 'None of us experienced any ill effect and all had a feeling of safety in the depression and panic that pervaded the community.'"[14]

Since this report I have learned of one additional case among the unvaccinated nurses, making three out of the thirty-five refusing prophylactic immunization.

Antityphoid vaccine is also, I feel convinced, destined to play an important part in the treatment of typhoid fever. As an agent powerful enough to give the immunity it does against infection it can certainly be counted on to hasten the development of the immunity which brings with it cure and convalescence in typhoid.

CONCLUSIONS

1. Antityphoid vaccination in healthy persons is a harmless procedure.
2. It confers almost absolute immunity against infection.
3. It is the principal cause of the immunity of our troops against typhoid in the recent Texas maneuvers.
4. The duration of the immunity is not yet determined, but is assuredly two and one-half years, and probably longer.
5. Only in exceptional instances does its administration cause an appreciable degree of personal discomfort.
6. It apparently protects against the chronic bacillus-carrier, and is, at present, the only known means by which a person can be protected against typhoid under all conditions.
7. All persons whose professions or duty involves contact with the sick should be immunized.
8. The general vaccination of an entire community is feasible and could be done without interfering with general sanitary improvements, and should be urged wherever the typhoid-rate is high.

11. Quoted by Wright: Brit. Med. Jour., Oct. 26, 1901, p. 1226.
12. Leishman: Harben Lecture, Jour. Roy. Inst. Pub. Health, London, 1910, xviii, 515.
13. Richardson and Spooner: Boston Med. and Surg. Jour., 1911, clxiv, 8.
14. Monthly Bulletin Connecticut State Board of Health, November, 1911.

A TYPHOID CARRIER ON SHIPBOARD

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An investigation just completed by the California State Board of Health has traced twenty-seven cases of typhoid among sailors to a carrier in the crew of a lumber steamer. Four of the patients succumbed to the disease. This typhoid carrier is unique among those already reported inasmuch as he was a member of a ship's crew and infected a large number of his companions without having anything to do with the handling of their food. The danger from typhoid on this ship was so well known among sailors that the vessel was called the "fever ship" and it was difficult to secure desirable men for the crew.

For three and a half years it has been noticed at the United States Marine Hospital in San Francisco that a large part of all the typhoid cases has come from the steamship *Acme*, a vessel carrying lumber from Humboldt Bay, usually from Arcata, to San Francisco Bay and sometimes to San Pedro, the port of Los Angeles. This observation was reported to the State Board of Health and the Health Department of San Francisco. An investigation, carried on by the latter, brought to light evidence pointing to a member of the crew as a carrier. This man, H. O., was investigated during two weeks in the City and County Hospital in San Francisco, but was discharged on Dec. 15, 1911, after the city bacteriologist had reported that the blood gave negative Widal tests and that typhoid bacilli could not at that time be demonstrated in the stools.

The investigation by the city showed that the solution of this problem involved work in other cities. The State Board of Health was notified of this fact and immediately assigned the investigation to the Division of Epidemiology of the Bureau of the Hygienic Laboratory. The director of the bureau began work on the problem on Dec. 28, 1911.

The *Acme* takes fuel oil in San Francisco but discharges cargo in Oakland. No passengers are carried, and there are usually only twenty-one men employed on board. These are the captain, first mate, second mate, chief engineer, assistant engineer, two firemen, one cook, one waiter, and twelve seamen.

Sanitary surveys showed that the ship was on the whole no less sanitary than most vessels of her kind. There was evidence of recent alterations made by the owners in their attempt to check the series of typhoid cases by making the vessel more hygienic. The messroom for the officers was clean and attractive. The crew took the food which was set out for them and ate it sitting on the cargo. The galley was not so clean as is desirable. Dishes were washed in hot water in a small tank heated by steam coils.

The forecastle housed twelve men in very close quarters. There were three tiers of bunks and very little unoccupied space. The air conditions had recently been rendered less objectionable by the placing of a ventilator through the deck overhead. At the first inspection the sailors' water-closet was in a filthy state and suggested opportunity for the spread of infection by flies. Before the investigation had terminated conditions had been greatly improved by the replacing of the bowl, the installation of a system of constant flushing with seawater, and the cementing of the floor. The danger of conveyance of infection by flies was very slight while the ship was at sea and practically free from them, but considerable when the vessel was tied at fly-infested wharves.

The introduction of typhoid bacilli to the ship in the food-supply could be almost entirely ruled out. No fresh milk was taken aboard, condensed milk being used. Fresh vegetables, such as lettuce, radishes, celery, and onions, were eaten raw by the crew, but all the food except meat was purchased exclusively in San Francisco. Other ships buying in the same market were free from typhoid.

The drinking-water supply for the galley was taken through a pipe and faucet from a large closed iron tank. Near the forecastle was a new covered barrel from which the crew obtained water through a faucet for drinking and washing. Near the deck-house was an old cask which had escaped destruction at the time the alterations were made, when the other water-containers were replaced. It lay on its side, and water was obtained from it by dipping through a small square hole with a common drinking-cup. It is apparent that members of the crew reaching into the dark barrel would wet their hands and contaminate the water. This cask was called the officers' cask. It supplied water for the officers' table and for any members of the crew who found it convenient to drink from it. The officers' cask has recently been thrown overboard and has been succeeded by a small barrel with a faucet.

Samples were taken from each water-supply and were examined for colon bacilli. All the examinations were negative except one of two tests made of samples taken from the officers' cask. A portion of this one sample of water showing colon bacilli was incubated in lactose bile and later plated on Endo medium, but typhoid bacilli could not be demonstrated. Possibly the results would have been different if the officers' cask had not been freshly filled shortly before each examination.

In order to eliminate as far as possible infection from unknown water-supplies the owners had specified for some time past that all the drinking-water should be taken aboard in San Francisco. This meant that the officers' cask might receive contamination for nearly a week between fillings. Limiting the water-supply to a single safe source did not prevent further cases from developing.

It was evident that there were several methods by which typhoid bacilli might be readily distributed by one member of the crew to the others. The infection could be spread by contamination of the food during preparation, by pollution of the officers' cask, by soiling of the hands of the crew in the crowded forecastle or the insanitary toilet, or by transference of infectious material by flies from the toilet to the food-supply. The contamination of the officers' cask seemed to explain most satisfactorily the possible distribution of typhoid bacilli from a carrier to the majority of the cases.

Inquiry showed that the men did not frequent any particular boarding-house or saloon in Arcata or San Francisco. They ate on board ship during their term of service and most of them had never gone ashore in Arcata. In San Francisco they scattered about town as did the sailors from the other ships and they had no special rendezvous. Other ships than the *Acme* coming into San Francisco are comparatively free from typhoid.

In order to find out whether any other ships sailing to and from Humboldt Bay and taking water there were troubled with typhoid, a number of ships accessible in San Francisco Bay were visited and the owners of other vessels were interviewed. In no instance had

V. 58
1912

there been recent cases of typhoid fever on board the ships. On six ships sailing to Humboldt Bay we asked whether the men knew of any vessels on which there had been typhoid, and on four of the six the reply was made that the *Acme* had had trouble with the disease. No other ships were mentioned as having typhoid. Dr. S. B. Foster, the officer representing the United States Public Health and Marine-Hospital Service at Eureka, reported that no cases of typhoid had come under his care since January, 1908.

The evidence already presented gave ground for a strong suspicion that the series of typhoid cases among the crew of the *Acme* arose from a focus on board the ship. Every effort was then made to detect the source by examination of individuals who might be carriers. It was impossible to lay the blame on any one cook or waiter as these men had been changed at short intervals during the series of cases. A similar situation existed with regard to the seamen and firemen. With the exception of the captain (G. O.), the first mate (J. H.), the chief engineer (L. P.), and the winch-driver (H. O.). no members of the ship's company at the time of beginning the investigation had been aboard for any considerable period. When the first visit to the *Acme* was made, she was in dry-dock and all the men had been discharged except the four mentioned above. Of these only the captain (G. O.) and the winch-driver (H. O.) had been aboard during the entire series of cases. The captain had never had typhoid. The winch-driver had had the disease four years before, but he had been examined in December, 1911, by the city bacteriologist of San Francisco and his stools had been found free from typhoid bacilli. The first mate had not had typhoid. He had been aboard for a year, and two years previously he had been in service on the same ship. The chief engineer had been on the *Acme* since April 6, 1910, and had been infected with typhoid on the ship in February, 1911.

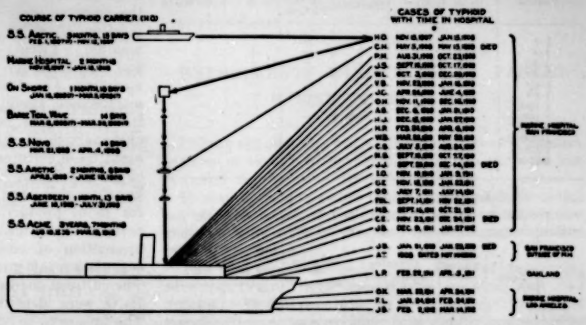

Chart showing periods of service of a typhoid carrier on six ships and resulting cases among the crews; prepared by Dr. W. A. Sawyer, director of the California State Hygienic Laboratory. Copyright, 1912, by California State Board of Health. Lengths of ships are proportional to length of stay of carrier on board ships.

The first laboratory investigation consisted of examinations of blood, feces and urine from the captain (G. O.), the first mate (J. H.), and the chief engineer (L. P.). Specimens were taken at the ship on December 30, and January 3, and additional samples from L. P. on January 16. Examination of the blood showed a positive Widal reaction for the engineer (L. P.). The other blood examinations were negative. Examinations of the urine and feces of each of the three men failed to reveal typhoid bacilli.

Shortly after the specimens from the captain, first mate, and chief engineer had been found to be free from typhoid bacilli, it was learned that two seamen of the *Acme* had just come down with typhoid and were under the care of the United States Marine Hospital in Los Angeles. It was decided to begin the investigation anew by making a thorough investigation of hospital records and of the names and dates on back pay-rolls of ship-owners, and also by interviewing as many of the early patients of the typhoid series from the *Acme* as could be reached. The records of the United States Marine Hospitals in San Francisco and Los Angeles were of great value, and we are greatly indebted to Surgeons James M. Gassaway and S. D. Brooks for placing hospital records at our disposal. We were fortunate in being able to find and interview four of the early patients, V. B., I. O., L. P., and O. K. The results of the searching of records and interviewing of former patients enabled us to secure the information shown on the chart illustrating this article. All the evidence tended to indicate that the winch-driver (H. O.) was responsible for the series of cases on the *Acme* and also for the single case received by the Marine Hospital since January, 1908, from the steamer *Arctic*. For the sake of brevity and clearness the chart has been made to show the history of H. O., the winch-driver, from the time of his taking service on the steamer *Arctic* to the time when our investigation was completed. The chart shows also the length of his stay aboard each ship on which he served, and indicates by initials all typhoid patients known to have come from these ships into hospitals and gives the dates of their stay under treatment. A study of the dates shows that all the cases received their infection while on board ship with H. O. The diagram shows also that patients from the *Acme* were cared for in three cities, San Francisco, Oakland and Los Angeles. That there were other undiscovered cases can be little doubted. In fact, one victim, J. F., who was reported by one of the crew, was omitted from the statistics because the diagnosis could not be confirmed by other evidence. The cases were not limited to the seamen. L. P. was chief engineer, and J. B., who died in the German Hospital in San Francisco, was first mate.

It will be noticed that during the stay of H. O. on the *Acme*, covering a period of forty-three months, there were twenty-six cases. During his period of service next in length (two and one-fourth months on the *Arctic*) one case occurred. In all there were twenty-seven cases of typhoid fever, four of which were fatal. Of the patients twenty-one were in the United States Marine Hospital in San Francisco, and three of them died, making the mortality 14.3 per cent. During the period beginning with H. O.'s return to work after his illness and ending Feb. 22, 1912, sixty-three typhoid patients were admitted into the Marine Hospital in San Francisco from all other ships entering San Francisco Bay, including the river boats, foreign ships and government boats. Of these sixty-three patients six died, showing a mortality

of 9.5 per cent. The cases traceable to the carrier, H. O., were one-fourth of all the typhoid cases admitted and were responsible for one-third of the resulting deaths. Under the care of the Marine Hospital in Los Angeles during the same period there were three cases from the *Acme* and fourteen cases from other ships. All of the seventeen patients recovered. All the cases which could be collected and confirmed showed that there had been twenty-seven cases traceable to H. O. and that four of the patients had died. This gives a mortality of 14.8 per cent., which suggests that the infection being distributed by H. O. was more virulent than the average strain of typhoid.

The evidence collected strengthened all previous suspicions that the infections came from a carrier on board the *Acme*, and special suspicion fell on H. O. It was decided to make thorough laboratory examination of

TABLE 1.—AGGLUTINATION TESTS ON THREE SUSPECTS AND TWO CONTROLS

Dilution of Serum Tested	Serum of				Serum of Control	
	G. O.	H. O.	L. P. vs. Hopkins	L. P. vs. H. O. 7th Gen.	A	B
1-4	+	+	+	±	±	+
1-8	±	+	+	±	±	+
1-10	±	+	+	±	±	+
1-20	—	+	±	+	±	+
1-40	—	+	—	+	—	—
1-80	—	+	—	+	—	—
1-100	—	±	—	+	∴	—
1-160	—	+	—	+	—	—
1-200	—	—	—	+	—	—
1-300	—	—	—	±	—	—
1-400	—	—	—	—	—	—
1-800	—	—	—	—	—	—

TABLE 2.—RESULTS OF CULTURE EXAMINATION

Name	Spec.	No. of Endo Plates	Colonies Suspicious in 48 Hours	Colonies on Russell's Med.	Reaction on Russell's Med. After 2 to 14 Days	
					Positive	Negative
G. O.	Urine	6	None	0	0	0
G. O.	Feces	12	Few	14	0	14
G. O.	Feces	11	Few	25	0	25
H. O.	Urine	6	Few	5	0	5
H. O.	Urine	6	Few	5	0	5
H. O.	Feces	12	Very many	107	55	52
L. P.	Urine	6	Very few	20	0	20
L. P.	Feces	18	Very few	10	0	10
L. P.	Feces	6	Very few	5	0	5
L. P.	Feces	6	Very few	5	0	5

material from all persons under slightest suspicion and to begin with the chief engineer (L. P.), the captain (G. O.), and the winch-driver (H. O.). The plan included keeping each man under investigation in a hospital for at least twenty-four hours. This would insure that the specimens were *bona fide* and properly taken. The A. W. Beadle Co., owners of the *Acme*, generously met the expense of keeping the men in the Roosevelt Hospital in Berkeley. On March 2, the *Acme* came into port at Oakland and the captain (G. O.) and winch-driver (H. O.) came to the hospital. Specimens of blood, urine, and feces were obtained from the two men during their stay of thirty hours. On March 10 the chief engineer (L. P.) reported for observation. Similar specimens were obtained from him during the following twenty-four hours. All three of the men were given fluidextract of cascara on admission to the hospital and Epsom salts the next morning.

The results of agglutination tests performed on the blood samples from G. O., H. O., L. P., and two normal individuals who had never had typhoid fever (A. and B.) are given in the first table. The test was made macroscopically and the serum was allowed to act for twenty-four hours in the specified dilutions on bouillon cultures of the Hopkins strain of typhoid except in one of the tests of the serum of L. P. In that case the sixth generation of a typhoid culture isolated from the stool of H. O. was used. It will be noticed that the serum of L. P. who had been infected on board the *Acme* had much greater agglutinating power for the bacilli from H. O. than for the standard laboratory culture. In Table 1 positive results are indicated by the sign +, negative by the sign — and partial (showing clumps and cloudy fluid) by the sign ±.

The specimens of feces and urine were plated on Endo medium. Suspicious colonies were transferred to Russell's double sugar agar. Those showing reactions characteristic of typhoid bacilli were submitted in bouillon culture to macroscopic agglutination tests with antityphoid serum. The results of the first part of these examinations are shown in Table 2.

In the second table it will be seen that fifty-five of the cultures isolated from the feces of H. O. gave the reaction characteristic of typhoid bacilli on Russell's medium. Twenty-six of these were planted on broth, and this third generation of the organisms on artificial mediums was tested with antityphoid serum. The macroscopic agglutination test was positive in twenty-four hours in all cases in dilutions of one to twenty but only partial in dilutions of one to fifty. In glucose broth these cultures all produced acid but no gas. Seven of these cultures from H. O., together with controls of known typhoid and colon bacilli, were tested for motility, for indol production, for acid and gas formation in various sugar media (dextrose, lactose, mannit), for production of color-change in neutral red agar, for coagulation of milk, and for liquefaction of gelatin. The cultural characteristics of the seven organisms from H. O. were identical with those of the typhoid bacillus. The failure to be completely agglutinated by antityphoid serum in dilution of one to fifty was accredited to the power which newly isolated cultures have of resisting agglutinins. This explanation was confirmed after some of the cultures had been transplanted through the eleventh generation in the course of two weeks. The strains from H. O. then equaled the Hopkins strain in agglutinability. Both strains gave complete agglutination at one to 4,000 and partial results up to one to 500,000. One of the H. O. cultures even showed evidence of clumping at one to 1,000,000.

The proof that H. O. was a carrier was now considered complete and the findings were reported to the secretary of the State Board of Health for executive action. What to do with H. O., now that he was known to be a constant source of danger, became a serious problem. He was an able-bodied man of 36. He had not been sick since recovering from typhoid in January, 1908, and he complained of no symptoms. He ran the winch on the forward end of the *Acme* and cared for the lamps and gears when the ship was at sea.

At a conference between health officials and a representative of the owners of the *Acme*, it was decided, on March 19, 1912, that this carrier should be taken off the *Acme* and an attempt should be made to rid him of his infection through appropriate treatment. Surgeon James M. Gassaway made this possible by offering to

V. 58 1912

take him into the United States Marine Hospital in San Francisco for study and treatment. Accordingly the Secretary of the State Board of Health visited the *Acme* and notified H. O. that he would be transferred to the Marine Hospital and would be placed under quarantine there. When H. O. was informed of the danger of his presence to others, he showed deep concern and voluntarily gave up his work and entered the hospital.

A consideration of the facts revealed by the investigation of the source of typhoid fever on the *Acme* leads to the following observations:

1. A carrier may be of great danger to others, even when not occupied in the preparation or handling of food. Conditions on shipboard may be specially favorable to the transference of infection, as witnessed by the occurrence of twenty-six cases within three and a half years on a ship carrying twenty-one men.

2. In examinations of cultures freshly isolated from materials suspected of containing typhoid bacilli, negative agglutination tests with the usual dilutions of serum should not be accepted without cultural confirmation. The well-known power of freshly isolated cultures to resist agglutinins was strikingly illustrated.

3. Emphasis is given by this investigation to the point which others have made that typhoid patients should not be unconditionally dismissed by physicians unless their feces and urine have been examined and found to be free from typhoid bacilli. If the staff of the Marine Hospital in San Francisco had discovered typhoid bacilli in the stools of their patient, H. O., in January, 1908, and had in some way prevented his spreading typhoid among sailors, this one hospital would have saved for itself the expense of treating twenty-one typhoid patients, and four deaths would have been prevented.

THE VALUE OF THE WIDAL REACTION IN THE DETECTION OF TYPHOID CARRIERS

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In a previous communication[1] I have said that most carriers of typhoid bacilli have a persistent positive Widal agglutination reaction and suggested that this fact should be taken advantage of to trace the source, and if possible anticipate a typhoid epidemic. By this means in Worcester, in 1910, one carrier was discovered who initiated an epidemic of 213 cases of typhoid, and in 1909, the probable source of two other smaller epidemics was brought to light. To show the efficiency of this procedure the cases of two more typhoid carriers are now briefly reported from our 1911 experience.

1. Between August 1 and September 27, five cases of typhoid were reported to the board of health on one milk route. The dairyman, the producer of about 60 quarts of milk daily, was also his own distributor. Specimens of blood were obtained from all persons on the dairy farm. One only, that of the dairyman himself, gave a positive Widal agglutination. He was 51 years of age and said that he had had typhoid twice, once when about 10 years of age and again about eight years ago, since which time his general health had been good. His urine and feces were examined. The feces contained typhoid bacilli. On the evidence of the positive Widal he had been prohibited from distributing milk. Nine more cases of typhoid were reported developing among his former customers in the next two weeks and none later.

2. On the report to the board of health of the death of one person and the illness of two other relatives in the neighboring house from typhoid, an investigation was instituted. In the family of the dead victim five months previously there had been one other death apparently from pneumonia. In this same family was a man who had had an attack of typhoid when in another state, eighteen months previously, followed by necrosis and abscess formation about the sternum. In spite of an operation a year ago he still had two small pus-discharging sinuses over the sternum leading down to the bone bare of periosteum. His blood gave a positive Widal reaction. On three different examinations his urine and feces were found negative for typhoid bacilli, but the pus from the sinuses over the sternum was positive on each of these occasions. The intermediary agent from the carrier to the three synchronous cases of typhoid fever seemed in this instance to have been fruit, which the carrier gathered some days before the onset of their attacks.

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1. Bigelow: THE JOURNAL A. M. A., Oct. 28, 1911, p. 1418.

EXPERIMENTS WITH BISMUTH PASTES

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During the past two years I have used Beck's bismuth paste in a variety of conditions and with more or less favorable results.

It may be said *a priori* that bismuth paste is useful not solely in chronic conditions. Many recent sinuses and sloughing wounds, etc., are quite amenable to this form of treatment.

The first series of cases were those of tubercular adenitis, twelve cases in all, ten cervical and two inguinal. In this condition, in which some of the glands are caseating or suppurating, it is almost impossible to keep a perfectly aseptic field during operation and, even when the glands have not broken down, the size of the cavity after their removal, often filled with blood as it is, encourages pus formation. It appeared that if this cavity were filled with bismuth paste before the last closing suture was inserted, suppuration would be prevented. This proved to be the case. There was no pain after operation and the cavity filled with a perfectly clear, aseptic mixture of serum and liquefied petrolatum, the bismuth being precipitated. Unfortunately for the success of the experiment, in these cases the paste seems to do more than its duty, not only preventing pus formation, but, in addition, preventing the formation of healthy granulations. The wound required to be opened and drained in the usual manner, but took much longer than usual to heal. In some of these wounds, which had filled with serous or seropurulent fluid, a stitch was removed and bismuth paste injected. The wounds healed painlessly, but rather more slowly than those in which the other forms of drainage were employed. In one case in which healing had taken place quite promptly there was an opening through a small vesicle about every second week, and a small quantity of seropus was discharged; then healing would readily take place again without further discharge. After this had happened three times it occurred to me that there might be some foreign body in the wound, and with a probe this could be felt

at about 1 inch depth. I removed it with a curet. It was a concretion of bismuth about the size of a dried pea and quite brittle; there were five more of these bismuth stones which were removed at the same time. The wound then healed permanently without further drainage.

The second series of cases, four pericecal abscesses, gave much more favorable results. The patients' ages were 45, 56, 62 and 73 years, respectively. They had all suffered attacks of appendicitis from ten to seventeen years previously. I will omit symptoms and details of the operations; suffice it to say that each wound was opened and drained with a rubber tube, of 1-inch caliber, for four days. On the fifth day, instead of substituting a smaller tube or gauze drainage — a procedure which is attended with considerable pain and which in certain cases might entail a slight amount of risk through the breaking down of adhesions—a glass syringe of 1½ ounce capacity was filled with bismuth paste and a small rubber tube, 6 inches in length, attached to the nozzle and passed down to the bottom of the sinus. The paste was then injected slowly until it filled the cavity to the level of the skin. The wounds needed no further drainage and no further care beyond a daily change of dressings. The cavities filled very rapidly, the evening temperature (which under ordinary drainage averages about 100 degrees F.) dropped in a few hours to normal and remained there. A little fresh paste was injected in from five to seven days and in three of the four cases this procedure did not need to be repeated, the sinuses being closed by the end of the second week.

The absolute freedom from pain or tenderness after this form of intra-abdominal drainage and the prompt fall in temperature, together with rapid healing, were all very gratifying to the patients as well as to the surgeon. It became apparent, too, from later observations that there is less liability to the formation of pockets of pus and dense postoperative adhesions than where other forms of drainage are used.

In seven subsequent cases of general peritonitis this form of drainage was used as above, in each case on the fifth day, each having been previously drained with large rubber tube and by means of Murphy's enteroclysis.

In ten of these eleven cases mentioned complete healing took place in from fourteen to twenty-one days, the eleventh, that of a man, aged 73, taking five weeks; this slowness was no doubt due to lack of vitality in the tissues. One especial advantage bismuth showed over other forms of drainage was that the muscular and skin sutures were far less inclined to suppurate and give way, so that one secured a much firmer scar and consequently less liability to postoperative hernia.

The next two cases are rather unusual. The first of these, a perirenal abscess, when opened contained about a quart of putrid greenish pus, the cavity extending downward and postperitoneally to about the middle of the internal surface of the ilium, while an apparently healthy kidney (which secreted normal urine) nestled in the upper zone of the cavity. I was at a loss to understand the *raison d'être* of the abscess and had to content myself for the present with irrigation and drainage. Two days later I removed the gauze and injected 4 ounces of bismuth paste and on the following day the cause of the abscess was evident. The bismuth was returned from the wound, black in color, showing that there must be some intestinal secretion acting on it. Evidently we had to deal with a fecal fistula of minute caliber. Some ulceration must have taken place in the posterior wall of the descending colon. The cause of ulceration was as yet unknown. The cavity commenced filling in rapidly, in three days the paste returned white; in three weeks more the cavity was a mere sinus about as large as a lead-pencil—both dimensions—and right at this time healing ceased. The patient showed slight signs of bismuth poisoning, blackening of gums and nausea. This was easily remedied in a few days by removal of the paste, etc., but the patient grew slowly worse and died two months later. Post-mortem examination showed sarcomatous nodules in kidney and liver. I think that had the pathologist looked for it he would have found lymphosarcoma of the mesocolon as well. This case is of interest in that it illustrates the use of bismuth paste as a diagnostic agent in detecting minute fecal fistulas in abscess cavities, and the power it has of rapidly healing these fistulas. It shows us, too, a simple way of proving their closure. It also points out once more the danger of using too large quantities of the paste, 4 ounces in this instance; but the following case illustrates this point more emphatically.

A large (formerly psoas) lumbar abscess with outer opening, 3 square inches of jagged hideousness from which the lower pole of the right kidney protruded, had been forming for twelve years. There was a suppurative spondylitis of the lumbar vertebræ and the crest of the ilium was eroded. The skin was undermined from the twelfth rib to the iliac crest and backward to the spinous processes. The patient, a woman aged 40, was greatly emaciated but still in fair condition. Her evening temperature was 102 to 103 F. and the amount of daily discharge from the wound was tremendous. She did not respond to Moro's tuberculin ointment. The urine was negative. The sinus was curetted and washed clean with hydrogen peroxid, the edges of the wound were trimmed and completely closed, then 6 ounces of bismuth paste were forced in. The temperature was normal that night for the first time in years; there was no pain; no morphin was needed. On the fourth day there was still no fever and no pain, and the wound was looking splendid. On the fifth day, however violent symptoms of bismuth poisoning appeared: incessant vomiting, diarrhea amounting at times to bloody stools, extreme weakness, cyanosis and clammy sweats, ulceration of mouth, blackening of gums followed by rapid emaciation. Thus in a few days we lost all we had gained and more. The paste was removed at once and treatment instituted to counteract the bismuth poisoning but it was two weeks before the patient recovered from it; and the wound, now minus some skin lost during operation, gaped wider than ever. The patient died six weeks later, death being in all probability accelerated by bismuth.

NOTE: One should always leave a free exit for bismuth paste where large quantities are used.

Bismuth paste makes a splendid dressing for burns or for sloughing surfaces, is soothing, healing and prevents the adherence of dressings.

In varicose ulcers and other chronic ulcers it is not so useful until after the healthy granulations have started, because it is not sufficiently stimulating, but in chronic ulcers as well as in chronic, sluggish sinuses, I substitute for ordinary bismuth paste the following:

℞ Bismuth subnitrate ..... 1 ounce
White petrolatum ..... 2 ounces

Dissolve on hot water-bath, stirring until cool; then (still stirring) add 5 per cent. of iodoform (i. e., 72 gr.).

The resulting paste acts not only as an antiseptic, but as a stimulant to granulating areas; but pads must be changed daily or dermatitis results. It must be kept in a dark jar, for light decomposes the iodoform and free iodin is formed. If bismuth paste is made by trituration only and not by heat, it forms a lumpy ointment which does not give as good results. It is quite

V. 58
1912

unnecessary to heat or sterilize the paste before using (if the sinus has no fine ramifications) and it is much more easily handled cold, being placed in the large end of the syringe, while the piston is out, with a spatula. The piston can then be forced in and the paste passes easily through nozzles of small caliber.

In all chronic sinuses in which healing is slow and granulations unhealthy and in which ordinary bismuth paste does not seem to benefit, the bismuth-formic-iodid paste is very stimulating. It causes a sensation of heat and slight burning for about an hour, but assists in a more rapid cure.

CONCLUSIONS

1. Bismuth paste as a drainage for acute suppurating sinuses is painless and efficacious, but does not assist in rapidity of cure.

2. When a sinus shows sluggishness, if 5 per cent. iodoform be added to the bismuth paste it is much more stimulating to granulations.

3. As a packing and drainage for localized intra-abdominal and pelvic sinuses bismuth paste is safe, painless, rapidly curative, prevents the formation of pockets of pus, lowers temperature and to a limited extent prevents postoperative adhesions.

4. It may be used as an aid to diagnosis in fecal fistulas as well as act as a curative agent.

5. In large cavities requiring 4 or more ounces of paste it should be watched carefully for symptoms of bismuth or arsenic (impurity) poisoning. Unless there is free exit for paste it is dangerous.

6. Bismuth "stones" may form in a closed sinus.

7. In clean wounds or those discharging serous it retards healing and tends to chronic conditions. To get results the discharge should be frankly purulent.

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PELLAGRAPHOBIA: A WORD OF CAUTION

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As in many past visitations of disease, where the causative factors were not worked out, undue alarm prevailed, coupled with an unreasoning attitude in their management, so we may view pellagra, whose threatening visage is now confronting this country.

History, and not very ancient history at that, will furnish such instances. I well remember the graphic description of a small-pox epidemic, as related to me by a physician, now gone to his reward. In this epidemic, occurring about seventy years ago in a western village, the populace almost fell over each other in a wild hegira, leaving hardly enough well ones to care for the necessities of the sick. Those remaining suffered untold privations for food, which the panic-stricken neighbors feared to bring even to the outer borders of the town, while the infected houses were burned with all their contents before the refugees would consent to return to the vicinity.

During the last yellow-fever epidemic but one, before the *Stegomyia fasciata* was tried and convicted, many needless regulations, entailing terrific expense, were forced on a frightened and bewildered people, while some of the prophylactic maneuvers were, in the light of our present knowledge, silly and grotesque. For instance, the postal regulations requiring all mail matter to be fumigated, all bulky packages to be sterilized, and letters to be perforated, no doubt would have excited the risibilities of the aforesaid stegomyias, had they been officially notified.

In the present instance, while the zeists and antizeists are waging their verbose warfare as to the etiology of pellagra, both the health authorities and the people at large are passing through a period of pellagraphobia, mild in some instances, but severe and unreasoning in others.

It is admitted that the specific etiologic factor in pellagra has not been traced to its lair. Until this factor is proved beyond a peradventure, there will necessarily be that element of uncertainty in which timid people will take no risks, keeping as far as possible on what they consider the safe side.

I, for my part, feel morally certain that pellagra is due to a toxicochemical poison generated in spoiled maize, and becoming active after being ingested in the human body. The weight of evidence bears this out; the majority of the careful students of the disease base their treatment on this assumption; and in those nations among whom the battle against pellagra has been fought, and apparently won, it was fought along the lines of zeistic belief.

I might assert, further, that practically all who have studied this disease join in the belief that it is neither contagious nor infectious. The nature of its onset and general course precludes this hypothesis, and I have no hesitancy in coming into close contact with pellagrins or permitting the attendants to do the same.

This growing pellagraphobia is to a certain extent chargeable to the physicians who, either directly or by innuendo, set in motion such fears. I might mention a hospital in this city which refuses to receive pellagrins on the ground that "it is an incurable disease," as if they had the prognostic functions of a supreme court. Less than two years ago there occurred in another hospital in this city a strike among the undergraduate nurses, aided and abetted by one of the house physicians, in which the *casus belli* was the nursing of these patients.

Several months ago there was under my care a woman from another state who suffered from an extremely mild attack of pellagra. The report becoming rife in the family hotel where she was stopping that she had this trouble, such alarm was excited that the landlady was informed that unless this lady left, the house would become vacant. The patient was requested to seek another hotel, which she did. I might mention many other instances, were it necessary to prove the prevalence of this phobia.

It is the consensus of opinion among the majority of the thoughtful observers of pellagra that the most efficient prophylactic measures consist in avoidance of corn products, unless the corn is known to be sound, abstention from alcoholics of all kinds, reasonable care in eating, and all those hygienic precautions calculated to keep the body up to par and in a resistant state.

While pellagra is unpleasant to nurse and treat, the attendants should be reassured, for a little ripple of fear, if encouraged, may grow into a billow of huge proportions, engulfing a whole neighborhood or community. In addition, while it is of the utmost importance to the patient that an early diagnosis should be made, the physician should be careful not to make a "snap diagnosis" on insufficient evidence. To diagnose as pellagra a sore mouth from pyorrhea alveolaris, an asymmetric skin lesion, an atypical gastro-intestinal disturbance, or some mental perversion, unless supported by other corroborative symptoms, is both unwise and unkind.

The object of this article, therefore, is to request the profession at large, while assuming a judicial attitude toward the unsolved problems of pellagra, and realizing the possible gravity of the situation, not to permit the seeds of an immoderate fear among the laity to take such root, that they may grow into a wide-spread pellagraphobia, a consummation earnestly to be deprecated.

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GAS-OXYGEN ANESTHESIA

OBSERVATION IN 2,000 CASES

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The noticeable increase of articles on gas-oxygen anesthesia shows the attention this anesthetic is attracting; and we see men who have only given a few hundred anesthesias attempt to draw therefrom conclusions which should be only speculative were this number increased threefold. One also notes the attempt to increase the death-rate from this anesthetic by reporting deaths due to this method, even when it was not used and in no way responsible for the death reported. I refer to the death quoted by Gwathmey,[1] as reported by Lydston.[2] At the time this death was reported I requested my anesthetist, Dr. James R. Dawson, to write Dr. Lydston, and after several letters had been exchanged it proved not to be a gas-oxygen anesthesia, and Dr. Lydston kindly consented to rectify the report.

Freeman Allen,[3] in his article on gas-oxygen anesthesia, cites three deaths, one in his own practice and two others in the hands of "young doctors," and then draws the conclusion that this is not a safe anesthetic. This does gas-oxygen anesthesia a great injustice, especially when we note the fact that in Allen's own case, according to his report, "the patient was a profoundly uremic, almost pulseless man." One would not expect patients who are almost pulseless to do well under any anesthetic, and one would not be greatly surprised if they died, although it would hardly be fair to hold the anesthetic wholly responsible for their death.

Unless the "two young doctors of Boston" were in the true sense anesthetists, their cases should not be charged up to the gas-oxygen anesthesia, and this anesthetic could not be condemned any more than one would condemn a certain surgical operation because one knew of two "young doctors" (not surgeons) who had attempted it and the patient died.

No one contends that this anesthetic is devoid of danger in unskilled hands any more than one would attempt to prove that a simple appendectomy is devoid of danger if performed by the untrained or unskilled doctor. Allen is to be commended on drawing the distinction between the pure gas-oxygen anesthesia and the gas-oxygen with "just a little ether," for the method is done a great injustice by many supposed gas-oxygen anesthetists who use "just a little ether," and whose patients have the same unpleasant after-effects as if the usual ether anesthesia is used.

No one will deny that there must be a mortality rate to gas-oxygen anesthesia, but I think that any surgeon who has observed the administration of several thousand of these anesthesias, by one skilled in this work, and observed the ease with which the patient is anesthetized, as well as the shock-free condition at the end of every operation, will be very loath to take up any other anesthetic again if it can be avoided. I have during the past four years performed over 2,000 operations under gas-oxgen anesthesia, and I am to-day using nothing in my surgical work except gas-oxygen anesthesia, regardless of the kind of operation, size of patient, or previous habits.

When I speak of gas and oxygen I do not mean gas-oxygen with "just a little ether." I mean that there is not one drop of ether used during the entire operation.

We (my colleagues at the South Highland Infirmary and I) would not hesitate to use another kind of anesthetic should occasion demand it, and we will perhaps find a patient who cannot be anesthetized quietly with gas-oxygen before we give many more thousand, but should this emergency arise I am quite sure that a search of our drug room would disclose a can of ether or chloroform with which we could "put him to sleep."

There are two ways of making a patient insensible to pain while he is undergoing an operation. One is to anesthetize him; the other is to "put him to sleep." The first requires skill; the latter usually requires strength. The first is performed by a man of sound gray matter; the second is selected because of the anesthetist's lack of this substance. Surgeons, as a whole, are very slow to appreciate the difference between trained anesthetists and the untrained, but if they will try 100 laparotomies under the former and 100 under the latter they will leave more happy homes and fewer widows and orphans in the former than in the latter class.

Having operated on over 2,000 patients under gas-oxygen, most of them in major surgical operations (no extraction of teeth), I feel that I know something of this anesthetic, but I fully realize the amount of study and observation required before one can feel that one understands it in every individual case. One thing that I am quite sure of is that it requires an anesthetist thoroughly trained in the work to administer it, and that it should never be intrusted to the intern, but to a well-paid specialist.

Selection of Cases.—We always examine surgical patients with care before the administration of the anesthetic, but regardless of findings gas-oxygen is given.

Weight.—It has been said that very large, robust men cannot be given gas-oxygen, but my January, 1912, record shows three men to whom this anesthetic was used, each weighing over 225 pounds, and they took it with much more ease than they would have taken ether.

The Heart.—In heart lesions we do not hesitate to use this anesthetic, as the rise in blood-pressure is not observed to any great extent where plenty of oxygen is given. This point is spoken of by Teter in a recent article.[4] At the clinic we also made observations in about fifty cases, taking the patients' blood-pressure before, during and after gas-oxygen anesthesia, and found little variation in the pressure if plenty of oxygen was given.

Lungs and Kidneys.—When there is damage to these important organs no one would for a moment question the superiority of gas-oxygen anesthesia over other methods. The reason for this has been so thoroughly gone into by men whose findings are so generally accepted that it would be useless to speak of them in this article. We refer to the work of Crile, of Cleveland, and the investigations of Hamburger and Ewing.[5]

Race.—The patient of dark-skinned race is the one who requires the most careful watching, for one of the most important signals is lacking in this class of

1. Gwathmey: The Journal A. M. A., Feb. 17, 1912, p. 466.
2. Lydston: Med. Rec., Nov. 12, 1910, and Feb. 11, 1911.
3. Allen, Freeman: The Journal A. M. A., Feb. 10, 1912, p. 395.
4. Teter in John B. Murphy's Surgical Clinics, I, No. 1.
5. Hamburger and Ewing: The Journal A. M. A., Nov. 7, 1908, p. 1586.

V. 58
1912

patients; that is, the color, which should always be little less than pink. At our clinic we usually have from two to four of this race each month. Dr. Dawson informs me that he is governed by the pulse-rate and respiration as to the amount of oxygen to give.

Previous Habits.—The hard drinker or the morphin habitué we find a very undesirable patient for an anesthetic of any kind, but no more so for gas-oxygen than for other anesthetics. It is in this class of cases that the use of scopolamin plays a very important part.

Kind of Operation.—The operations about the anus, where divulsion is required, are the most difficult for the anesthetist to relax thoroughly, but usually a few extra minutes will solve the difficulty.

Preliminary Medication.—We routinely give morphin 1/4 grain, strychnin 1/30 grain, and atropin 1/100 grain, three-quarters of an hour before operation, unless there is some contra-indication to their use. The administration of morphin is not only for its aid in quieting the patient and assisting the anesthetist, but because the patient awakes so quickly that the pain would be almost unbearable if some means were not used to assist him. In young children, who, as a rule, bear morphin poorly, we give camphorated tincture of opium about one hour before operation. This can be continued after operation as they are, as a rule, free from the vomiting seen after ether.

Administration.—The first essential is to have an anesthetist of ability and one who has given much time and thought to this subject. He should be employed to give every anesthetic, so that his experience in this work would enable him to become more efficient, and he should be paid as every other specialist is paid; no attempt should be made to secure the services of a high-class physician at the price of a workman. The gentle manner and the assurance of the anesthetist will calm the patient's excitement, and render him a much better subject for the anesthetic.

I have been using the Cunningham apparatus, which has proved very satisfactory. The only improvement one could suggest is to leave off the ether-chamber, so the gas-oxygen anesthesia with "a little ether" could not be administered with this machine. Any apparatus in which one can get definite proportions is all that is required. This machine receives its supply from tanks, the gas coming in 3,200-gallon, the oxygen 750-gallon, the carbon

OPERATIONS

PERFORMED UNDER NITROUS-OXID AND OXYGEN - DURING JANUARY - 1912 -

№	NAME	SEX	AGE	CHEST	URINE	BLOOD	WHT	ANESTHETIC	NOTE BEFORE ANESTHETIC	OPERATION	TIME MINUTES	PULSE AFTER	DRAINED	RECOVERY
1	H.C.	M	33	NEG.	NEG.	[illegible]	186	GAS & OXYGEN		APPENDIX	38	120	NO	YES
2	T.O.	F.	32	NEG.	NEG.	[illegible]	120	GAS & OXYGEN		APPENDIX	17½	132	YES	YES
3	W.S	F.	47	NEG.	NEG.	[illegible]	158	GAS & OXYGEN		HEMORRHOIDS & PROCTODYNIA	13	104	—	YES
4	C.H.	M.	25	TUBERCULOSIS	GAS AND CASTS	[illegible]	—	GAS & OXYGEN		SUPPURATING APPENDIX	22	120	YES	YES
5	L.R	F.	48	NEG.	NEG.	[illegible]	—	GAS & OXYGEN		HYSTERECTOMY	37½	116	YES	YES
6	J.T.	M.	27	NEG.	ALB.	[illegible]	—	GAS & OXYGEN		APPENDIX	11	92	NO	YES
7	W.B	F.	18	MITRAL STENOSIS	NEG.	[illegible]	—	GAS & OXYGEN		FEMORAL HERNIA	20	132	NO	YES
8	F.B	F.	34	NEG.	NEG.	[illegible]	—	GAS & OXYGEN		TUBO-OVARIAN ABSCESS OF UTERUS	26	112	YES	YES
9	S.S	M.	24	NEG	NEG.	[illegible]	MINIM	GAS & OXYGEN		INGUINAL HERNIA	116		29	100	NO	YES
10	E.H.	F	21	NEG	NEG	[illegible]	—	GAS & OXYGEN		RUPTURED APPENDIX	140		27	96	YES	YES
11	P.C.	M.	22	NEG.	NEG	[illegible]	—	GAS & OXYGEN		APPENDIX	104		27	128	YES	YES
12	M.G	M	50	T.B	NEG	[illegible]	—	GAS & OXYGEN		HEMORRHOIDS OF NUMEROUS	84		17	72	YES	YES
13	M.K.	F	38	NEG	NEG	[illegible]	—	GAS & OXYGEN		RECTUM CARCINOMA	120		47	124	YES	YES
14	T.H.	F	18	NEG.	NEG	[illegible]	—	GAS & OXYGEN		APPENDIX	96		22	134	NO	YES
15	J.S	F	57	NEG.	NEG.	[illegible]	—	GAS & OXYGEN		UTERINE CARUNCLE	116		6	100	NO	YES
16	M.P	F	30	NEG	LARGE AMT ALB & R.B.CELLS	[illegible]	—	GAS & OXYGEN		ABORTED ECTOPIC	150		20½	140	YES	YES
17	M.P	F	24	NEG	NEG	[illegible]	—	GAS & OXYGEN		ABSCESS OF BREAST	124		4	120	YES	YES
18	T.B	F	14	NEG.	NEG.	[illegible]	—	GAS & OXYGEN		STERILITY OF TUBE	96		19	116	YES	YES
19	P.B.	M.	18	NEG	NEG	[illegible]	—	GAS & OXYGEN		INGUINAL HERNIA	76		13	70	NO	YES
20	V.D.	F.	43	NEG	NEG.	[illegible]	—	GAS & OXYGEN		RECTOSIGMOID CARCINOMA	112		89	120	YES	YES
21	M.E.	F.	28	NEG.	NEG.	[illegible]	—	GAS & OXYGEN		PERITONITIS	128		8	120	NO	YES
22	J.P.	F	22	NEG.	ALB	[illegible]	—	GAS & OXYGEN		ABORTED ECTOPIC	140		13	104	YES	YES
23	V.B	F.	21	NEG.	NEG.	[illegible]	—	GAS & OXYGEN		PLASTIC OPERATION	100		5	120	YES	YES
24	M.H.	F.	54	NEG.	ALB.	[illegible]	—	GAS & OXYGEN		RESECTION OF APPENDICITIS	104		27	108	YES	YES
25	B.B	F	14	NEG	ALB.	[illegible]	—	GAS & OXYGEN		APPENDECTOMY	146		8½	144	YES	YES
26	V.N.	M	26	NEG.	NEG.	—	—	GAS & OXYGEN		ABSCESS OF HAND	58		2	94	YES	NO
27	M.P	M	31	NEG.	NEG.	[illegible]	—	GAS & OXYGEN		CIRCUMCISION	100		—	112	YES	YES
28	T.Y	M.	19	NEG.	NEG.	—	—	GAS & OXYGEN		INJURED TENDON & MUSC	104		12	108	NO	YES
29	B.R	M	35	NEG.	LARGE AMT ALB & GRAN CASTS	[illegible]	—	GAS & OXYGEN		CHOLECYSTOTOMY	112		21½	124	YES	YES
30	M.N.	F	28	NEG.	ALB.	[illegible]	—	GAS & OXYGEN		RUPTURED APPENDIX	128		22½	158	YES	YES
31	V.D	F	19	NEG	LARGE AMT ALB.	[illegible]	—	GAS & OXYGEN		DRAINED	140		3	140	YES	NO
32	W.M	M.	30	NEG.	—	—	—	GAS & OXYGEN		DRAINED BLADDER	100		10	108	YES	YES
33	W.B	M	18	NEG.	NEG.	—	—	GAS & OXYGEN		PLASTIC OPERATION	72		4	92	NO	YES
34	J.B	F	21	NEG.	ALB	[illegible]	—	GAS & OXYGEN		AMP OF THIGH FOR SARCOMA	142		11½	148	YES	YES
35	V.C.	M.	3	NEG.	NEG.	[illegible]	—	GAS & OXYGEN		RUPTURED APPENDIX	120		3	104	YES	YES
36	B.W	M	21	NEG.	ALB.	[illegible]	—	GAS & OXYGEN		INGUINAL HERNIA	100		10	100	NO	YES
37	J.D.	F.	50	NEG	ALB & CASTS	[illegible]	140	GAS & OXYGEN		DRAINED ABDOMEN	120		8	120	YES	YES
38	B.W	M	38	TUBERCULOSIS	ALB.	[illegible]	—	GAS & OXYGEN		APPENDIX	72		34	100	NO	YES
39	W.B.	M.	48	NEG.	NEG.	[illegible]	248	GAS & OXYGEN		GANGRENOUS APPENDIX	88		24	108	YES	YES
40	B.F.	F.	29	NEG	ALB	[illegible]	160	GAS & OXYGEN		APPENDIX	100		21½	116	NO	YES
41	L.O.	M.	34	NEG.	NEG.	[illegible]	—	GAS & OXYGEN		HEMORRHOIDS	132		14	100	NO	YES
42	H.T.	M.	37	NEG.	NEG.	[illegible]	227	GAS & OXYGEN		GANGRENOUS APPENDIX	116		18	140	YES	YES
43	T.M.	F.	21	NEG.	ALB.	[illegible]	—	GAS & OXYGEN		INTESTINAL OBSTRUCTION	140		15½	152	YES	YES
44	L.S.	M.	34	NEG.	NEG.	—	MINIM	GAS & OXYGEN		HERNIA	74		14	94	YES	YES
45	D.M	F.	38	MITRAL STENOSIS	NEG.	[illegible]	—	GAS & OXYGEN		HYSTERECTOMY	132		29	128	YES	YES
46	V.R	F.	21	NEG.	NEG.	[illegible]	—	GAS & OXYGEN		SALPINGECTOMY APPENDECTOMY	120		13½	128	YES	YES
47	H.M.	M.	23	NEG	ALB	[illegible]	—	GAS & OXYGEN		APPENDIX	88		22	120	NO	YES
48	T.H	M.	36	NEG	NEG.	—	—	GAS & OXYGEN		CIRCUMCISION	48		5	88	NO	YES
49	A.G.	M.	4	NEG	NEG.	—	—	GAS & OXYGEN		HYPOSPADIAS	116		42	120	NO	YES
50	L.W	M.	26	NEG	NEG.	[illegible]	—	GAS & OXYGEN		SARCOMA OF CECUM	94		14½	96	YES	YES
51	C.A	M	12	NEG	NEG.	—	—	GAS & OXYGEN		AMPUTATION OF FINGERS	134		12	120	YES	YES
52	J.O	M.	34	NEG.	ALB + R.C. CASTS	[illegible]	236	GAS & OXYGEN		GANGRENOUS APPENDIX	88		13	104	YES	YES
53	W.R	F.	27	NEG	NEG.	[illegible]	—	GAS & OXYGEN		SALPINGECTOMY APPENDECTOMY	140		19	132	NO	YES
54	G.C	M.	50	NEG.	NEG.	[illegible]	190	GAS & OXYGEN		GANGRENOUS APPENDIX	124		15	90	YES	YES
55	W.B	F.	31	NEG	ALB	[illegible]	—	GAS & OXYGEN		SALPINGECTOMY APPENDECTOMY	134		29	128	NO	YES
56	W.L	F.	30	NEG.	NEG.	[illegible]	—	GAS & OXYGEN		APPENDIX	104		21	128	NO	YES
57	J.S.	M.	28	MITRAL REG.	NEG	—	—	GAS & OXYGEN		INF. MALLEY GLANDS	128		13	100	YES	YES
58	W.M.	M.	28	NEG.	NEG.	—	—	GAS & OXYGEN		AMP OF ARM	104		30	128	NO	YES
59	J.B	F	31	NEG.	NEG.	—	185	GAS & OXYGEN		PLASTIC OPERATION	90		4½	92	NO	YES
60	O.B	M	30	NEG.	NEG.	—	—	GAS & OXYGEN		VARICOCELE	74		15	104	NO	YES
61	W.H	M.	29	NEG.	NEG.	—	—	GAS & OXYGEN		LARGE SEBACEOUS CYST	88		5	64	YES	YES
62	V.S	F.	35	NEG.	ALB ++ CASTS & R.B.CELLS	[illegible]	—	GAS & OXYGEN		HEMORRHOIDS & RECTOCELE	80		31½	112	YES	YES
63	G.M.	F	23	NEG.	NEG.	[illegible]	—	GAS & OXYGEN		CYST	112		38	112	YES	YES
64	W.H.	F	27	MITRAL REG	NEG.	[illegible]	—	GAS & OXYGEN		ECTOPIC	96		24	110	YES	YES
65	B.B	F.	17	NEG.	ALB ++ CASTS	[illegible]	168	GAS & OXYGEN		CESAREAN SECTIONS	120		32½	136	NO	YES

dioxid in 100-gallon cylinders. If procured in these large cylinders the gas is less expensive, and the flow to the machine is perfectly smooth and regular.

Complications on the Table.—The respiration is the main factor to be watched, and if it is suspended in any case a punch over the stomach will suffice. Carbon dioxid can be given if desired. The pulse-rate is altered very little by this anesthetic. If the heart becomes unusually fast or slow the administration of oxygen in proper quantity will correct it.

Postoperative Complications.—The observation of men whose experience in the work is so much more extensive than my own is that there are no postoperative complications which may be attributable to the anesthetic. The urine excreted after gas-oxygen is greater in quantity than after ether; it is always free from albumin, which is not the case after ether. The patients awaken in a few minutes and are better able to care for themselves, and the vomiting is very infrequent, unless the Trendelenburg position is used for some time, in which case they very frequently vomit while on the table. The rapid elimination of the anesthetic is quite noticeable in the difference between the cesarean-section baby under this anesthetic and under ether. The question of rebreathing is one which has been much discussed of late. There seem to be two questions at issue when the subject of rebreathing is under discussion; first and foremost is cheapness; second, the value of carbon dioxid as a respiratory stimulant. If the question of cheapness is to be considered, then why not use ether or chloroform? They are much cheaper. The value of carbon dioxid as a respiratory stimulant has been proved, but we find this is very seldom needed, so why give a stimulant in each individual case? It should be more logical to have a tank of carbon dioxid in the pure state attached to the machine where we would always have it at our command to use in an emergency. This we now have, though seldom used. If we need a respiratory stimulant we would certainly want it at once, and as the exhaled breath is composed of only 4 per cent. carbon dioxid it would require quite a number of breaths to get the stimulating action of carbon dioxid desired, and at the same time the patient is breathing in the other waste products of expiration. There is no necessity of carbon dioxid being given in the ordinary gas-oxygen anesthesia, for carbon dioxid is slightly increased over normal in the blood while the patient is under gas-oxygen (Teter[4]).

It would be hard to convince the physician, striving at all times, by proper ventilation in buildings, to prevent rebreathing, that rebreathing is a good therapeutic measure, or that when he needs a heart stimulant nux vomica is superior to strychnin, although one might contend that nux vomica has strychnin in it, as the advocates claim the expired air contains carbon dioxid. Both are right. In the daily routine of operative work we of necessity operate on several tuberculous patients in each one hundred. I think few advocates of rebreathing would enjoy breathing from the same bag after a tuberculous patient. The bags I have seen cannot be boiled, and it is practically impossible to sterilize them in any other way. As we can get carbon dioxid without contamination the only argument in favor of rebreathing is cheapness, which should never be considered if the welfare of the patient is at stake.

The majority of my gas-oxygen anesthesias have been administered by Dr. James R. Dawson, whose superior in this work would be hard to find, and to him and Dr. D. S. Moore, my associate, I owe much for the low mortality seen in this work.

ABOUT OURSELVES

ANTHONY BASSLER, M.D.
NEW YORK

As medical men to take what comes to us honestly is our privilege, but righteousness with a full view of the future is our duty. This righteousness is even more necessary with us to-day than it had been with those of the years gone by. In former days when traveling was by stage-coach, people settled down in their communities; a near-by town was too difficult of access to visit frequently, and the medical man was a part of the stay-at-home community. Now, however, the well-to-do people are spending less time in the country and more in towns, where there is congregated learning, business, wealth and society.

Not many years ago it was an event causing considerable gossip for a medical man to leave his place of practice and repair to one of the great cities in search of learning in medicine. After his rather early return it was satisfying and even gratifying for his neighbors to feel that superior wisdom had come to him, he and they were convinced that he was now entitled to recognition as a specialist, and a framed certificate signed by a leader in the subject attesting to his having taken a few weeks' course in a post-graduate school further helped to make this assumption valid. Not to be outdone, other ambitious ones of his fellow practitioners soon began to do likewise, and then it became necessary for men to make annual pilgrimages to the centers of learning to maintain their status. In these communities in the last ten years men have settled for practice who were the products of medical colleges of good quality. They, because of education, were more scientific than the older practitioners, and they journeyed to the cities as a duty to science. The literature of the medical journals has gone to the most remote recesses of the country, carrying with it information of the developments in medicine and awakening ambitions generally. Ready and inexpensive transportation placed the far parts of the country in quick touch with thickly populated localities, and the medical men traveled and came into contact with each other.

The magazines, lecture platforms, lay press, etc., have given decidedly more knowledge of medical matters to the lay people than ever before, and there are now many persons who can intelligently discuss medical subjects. The exclusiveness and dictatorialness of the former-day medical man have become rare and are now regarded by the lay people as signs of effrontery or cloaks of ignorance. From all over the medical man has been drawn into the melting-pot of progress, so that the distinctions between him and the lay people are dropping like leaves in the fall.

In this development of the times, it seems that we should think of how we should conduct ourselves to meet the changing conditions, not only those of to-day, but those which will come. As all great movements are built on tradition and segmentary development, are we as medical men of to-day not shirking the responsibility of building props of development for the practitioners to come? From the conduct and interests of lay people we can learn nothing that would be helpful to us in professional ways, yet, they now being within our ranks, should we not be more careful of exhibitions of our ideas, temper and style of talk, morals, etc., than ever before?

There are those among us who have no confidence in their fellow practitioner, because they are keenly aware

V. 58
1912

of their own unworthiness. With these, definite assertions of opinion, a look of dissatisfaction, a shrug of the shoulders, a word dropped here and there so that it might go into the channels of another practitioner's case, are still cheap bids for practice. With the awakening knowledge of us among the lay people, why do some men persist in practicing these when they can only react to their own discredit and limitation? Why not accept the standard that every one is worthy of the price he puts on his service, and not engage in fee-splitting, or having fees lowered for a patient so that he may feel dependent for guidance in medical affairs when the patient can and is liable to go elsewhere for service without considering any one of us? We must not, while we pretend to be friends, engage in backbiting and defaming one another, but be real friends at all times, or at least be silently indifferent toward those we have no regard for. When we meet scientifically, let us do so on the basis of individual merit, and when socially, let us do so on the basis of congeniality of taste or good comradeship, and not for a feverish craving for self-advertisement, admiration or excitement. Remember that the lay people are close to us now, seeing, hearing, learning and deeply interested in all of the affairs that we engage in.

The practice of medicine is the noblest profession of man, and the art full of fine examples of the past and present. Then why, in these gatherings of ours to which we invite members of the boards of directors of our hospitals, and when other lay people are present, do we engage in questionable stories, common talk, and tell tales about some other practitioner or speak humorously of things that should be sacred with us? It seems that the day has come when all of us should show more pride in our calling, our institutions and ourselves and act before the public with dignity so that they must respect us fully, now, and when we show them the wares of ours that they are still to see and learn of. This is the course that will educate the people away from ready criticism of doctors and medical matters, stop the publishing of articles and those overdrawn jokes on doctors in the lay press, and make for opposition against the establishment of creeds, sects and cults. Democratic demeanor is the noble standard of America, but it does not require the debasement of our profession or ourselves for its development or perfection—far from it.

126 East Sixtieth Street.

Newspaper and Medical Journal Advertising.—While the medical profession is making a great hue and cry about patent medicines and quack doctors, and lampooning the editors of newspapers and popular magazines for their selfish attitude in accepting advertising from such perpetrators of fraud, it may not be amiss to look at some of the inconsistent practices on the part of supposedly reputable members of the medical profession. It is our candid opinion that most of us live in glass houses and have no right to throw stones. For instance, what right have we to complain about the advertising carried by newspapers and magazines when we not only tolerate but support medical journals that carry the worst kind of nostrum advertising? What right have we to complain about the people dosing themselves with patent medicines when we prescribe proprietaries about which we know little or nothing, and which usually are misrepresented by the manufacturer? What right have we to complain of the grafting done by the quack doctor when so-called reputable medical men will operate for the sake of the fees, and will not only give or accept the commissions but will actually traffic in the ills of humanity in a manner that would do credit to Captain Kidd? Surely the medical profession needs a house cleaning and the sooner we begin, the better.—*Jour. Indiana State Medical Association.*

CONTRIBUTION TO THE SURGERY OF BONES, JOINTS AND TENDONS

JOHN B. MURPHY, A.M., M.D., LL.D.
President of the American Medical Association
CHICAGO

(Continued from page 1265)

TREATMENT OF ACUTE INFECTIVE ARTHRITIS NOT COMMUNICATING WITH SUPPURATIVE FOCI OUTSIDE THE JOINT

The treatment of acute arthritides to avoid the baneful, irreparable conditions that have been resultant from these infections involves a masterly, preconceived, well-calculated, accurately directed and timely activity in place of the passive, expectant, inefficient, if not harmful, management which they have received in the past.

While we may not always be able to control the infections or prevent the ankylosis, we are always able to control the deformities and avoid the horribly disfiguring contortions resultant from these infections called rheumatism that we see in our every-day practice.

The general plan consists of:

1. Relief of the tension of infection products by careful aspiration of the fluid in the joint. This retards the destruction of the joint and joint capsule, which is so much accelerated by tension. It might be relieved by drainage, but drainage of a joint with the insertion of tubes means a subsequent ankylosis in 96 per cent. of the cases. The ankylosis following drainage is a very extensive one; therefore drains should never be used. The joint may be incised and immediately sutured without causing any particular injury.

2. Relief of the intra-articular pressure on the bone ends caused by involuntary muscular contraction. This is best effected by an ordinary Buck's extension with a weight *sufficient to overcome the muscular contraction*, and ranging from 10 to 25 pounds, depending on the patient's musculature. It can be applied to the upper and lower extremities with equal advantage. It is the best means for the relief of pain; it avoids ankylosis, as in many of the cases the only ankylosed point in a knee-joint, for instance, is a nickel-sized area where the bones were pressed into each other during the inflammatory process. It corrects positions and avoids deformity. It is always at hand and *should be applied the first day in every type of acute arthritis, no matter what name is given to it.*

3. Suppression of the infection in the joint cavity. It can be rendered sterile or nearly sterile by injecting into it daily 10 to 20 c.c. of formaldehyd solution in glycerin, or every two or three days, until the inflammatory process subsides, controlling the intra-articular fluid tension by aspiration, as outlined above.

In 1890, shortly after Trillot demonstrated the powerful germicidal properties of formaldehyd, I began making injections of liquor formaldehydi, iodoform and glycerin into tuberculous joints, and in 1900 I began using it with glycerin alone as an antiseptic and immunizing fluid in joint cavities. Its effect is fourfold: A. It renders the fluid in the joint a poor culture medium. B. It produces a great local polynuclear leukocytosis in the joint fluids. In a large number of cases examined by me the percentage of polynuclears increased from 1 and 30 per cent. to 60 and 88 per cent. This, I believe, is the most important factor in the action of the liquor formaldehydi and glycerin injec-

tions of the lymph spaces, and resists the invasion by the microorganisms that are thrown into or produced in the joint. C. It produces a local cofferdamming and infiltration, as these polynuclear cells give up a trypsin ferment which aids in converting the albuminous substances into peptones, thus rendering them absorbable, as was shown by Jochman in his experiments with iodoform and glycerin. In addition, they have their phagocytic action, which is a powerful factor in overcoming the infection of the synovial membrane and checks intoxication. D. It produces a great constitutional leukocytosis, as indicated in the following examples.

The following tabulation shows some of my early laboratory findings in this work, taking the white blood-count before and after the formaldehyd and glycerin injections:

Case 1.—Mr. F., gonorrheal arthritis.
20 hours before injection, w. b. c., 7,500
12 hours after injection, w. b. c., 12,500

Case 2.—Miss X., cryptogenic arthritis.
21 hours before injection, w. b. c., 8,600
8 hours after injection, w. b. c., 11,800

Case 3.—Mr. V., acute gonorrheal arthritis.
18 hours before injection, w. b. c., 15,200
10 hours after injection, w. b. c., 21,600

Case 4.—Mr. F., gonorrheal arthritis.
18 hours before injection, w. b. c., 8,000
7 hours after injection, w. b. c., 13,000

Case 5.—Mrs. W., traumatic arthritis.
22 hours before injection, w. b. c., 8,400
8 hours after injection, w. b. c., 13,400

Case 6.—Miss K., chronic metastatic arthritis.
16 hours before injection, w. b. c., 11,800
7 hours after injection, w. b. c., 13,600

4. The use of autogenous vaccines has a striking effect in many of the metastatic arthritides. When it is known that they are of the streptococcic type, the streptolytic serum should be used in large doses and frequently repeated. One of the peculiarities of this metastatic variety of infection is that it exhausts its virulence very rapidly. The overcoming of the immediate toxic effect is, therefore, of prime importance and tides the patient over until the constitutional and local resistance are of themselves able to overcome the infection.

Luxations and subluxations should be avoided carefully during the progress of the inflammatory condition. They are very common and most detrimental in their final result preventing even an arthroplasty for the subsequent restoration of function, and are always available through proper attention in the early stage of infection.

Essential hydrops genu without demonstrable lesion in the bone or deep synovial membrane should be treated by aspiration and an injection of 2.5, 3 and 3.5 per cent. dilution of liquor formaldehydi in glycerin, increasing the strength, depending on the reaction produced by the milder solutions. Two or three injections suffice for the cure of this condition. The patient should be confined to bed with a Buck's extension for ten days after each injection.

Summary.—The treatment of acute articular arthritis in the large joints, of metastatic origin, should always be surgical, and consists in, first, relief of the joint tension (aspiration); second, relief of the intra-articular pressure (Buck's extension); third, neutralization of the infection in the joint and the production of local immunity through injections; fourth, the administration of vaccines; fifth, the avoidance of laxations or deformities during the period of inflammatory activity.

By this means practically all deformities resultant from arthritides can be overcome, the number of ankyloses greatly diminished, and the period of invalidism materially reduced.

It is probable that in the future we will find some medicament that will produce a greater local polynuclear leukocytosis than the liquor formaldehydi and glycerin mixture does, and not too much local irritation. This, however, we must leave to the future. Venice turpentine produces the superlative polynuclear leukocytosis, practically 100 per cent. of cells of that type, but the combinations of Venice turpentine which I have made have produced a too active local irritation to admit of their use in the joint. I hope someone will work out a usable formula for the use of Venice turpentine, as it is an ideal leukocyte stimulant.

ANKYLOSIS

Ankylosis should be divided into (1) bony; (2) cartilaginous; (3) fibrous; (4) periarticular-ligamentous-capsular; (5) extra-articular, skin scars, tendons, sinews, nerves, arteries.

Ankyloses occur at all ages and from the many different conditions I have mentioned. They are most common in the aged, but they also exist in the prenatal period. I have one case illustrating this, the skiagram of which was published in THE JOURNAL.[1] The picture was ordered made by me to determine why the hand remained so far in front of the face of the fetus *in utero*, from which position I could not displace it, in an examination made in the eighth month of gestation. It seemed as though the hand would come through the wall of the uterus. The *x*-ray shows the forearm in practically the full extended position and also shows that the right elbow-joint is ankylosed.

The fetus was delivered one month later and a complete fixation of the right elbow was present. The left one admitted of some flexion. The fixation in the right arm was attributed to an arrest of development in the ossification before the joint had completely formed. There was a paralysis of all of the muscles of both arms as well as a paralysis of sensation due to peripheral nerve interruptions which were caused by pressure from the cord, and not an amniotic band. It was not due to a central lesion, as spasticity, reflexes, as well as pain response would be present. This was the first skiagram of a fetus *in utero* that had been made by Dr. P. H. O'Donnell, whose skill with the *x*-ray instrument gave such a splendid result, enabling us to make a differential diagnosis before delivery.

My treatment of ankylosis was based on the knowledge of the pseudo-articulation after fractures, and the pathologic evolution of hygromata. In the management of ankyloses it can be seen that the various elements producing the ankylosis must be taken into consideration. From a practical standpoint, however, the osseous, cartilaginous, intra-articular fibrous varieties may be treated under the same head.

The osseous-fibrous and capsular varieties yield only to arthroplasty, while the periarticular and extra-articular types may be treated successfully by capsulotomy, tendon elongation, or excision of the exostoses. When the arteries, bones and nerves are materially shortened by prolonged flexions, excision of part of the bone, thus shortening it, is the only operation that gives good results.

TECHNIC OF ARTHROPLASTY IN THE VARIOUS JOINTS

Hip.—After having made the usual aseptic preparations and iodin application to the field of operation, a

1. March 16, 1912, p. 748.

V. 58
1912

U-shaped incision is made, the flap measuring about three inches in width, and the base directed upward. Incision is begun three inches above the trochanter and extends downward two inches below the trochanter (Fig. 25), so that it is placed exactly in the center of the U. The knife passes through the skin, superficial fat and fascia lata, so that all these tissues are dissected and displaced upwards in the flap.

The next step in the operation is to free the trochanter, leaving its muscles attached to it from the shaft.

A large, curved, flat, blunt-pointed needle, chain-saw carrier, threaded with heavy silk, is passed around the base of the trochanter from before backward under the muscles attached to it. This serves as a carrier for the chain-saw which is next brought into position. The trochanter is carefully sawed off downward and outward and is retracted upward out of the field of operation, carrying with it the attached muscles. The obturators and pyriformis are then divided and both ends transfixed with sutures for subsequent approximation. The joint is now freely exposed and the next step in the operation consists in incising the capsule of the joint without, however, separating it from its attachment to the acetabulum. It is loosened from the neck of the femur and stripped upward toward the head of the bone, so that it can be interposed later between the head of the bone and the acetabulum, if needed, so as to assist in the formation of a new lining for the acetabular cavity.

ANKYLOSIS OF HIPS

CASE 22.—*Patient.*—R. C., aged 31, was admitted to Mercy Hospital March 29, 1911. Family history: Father died at 60 from dropsy; otherwise negative. At 16 the patient contracted gonorrhea, was treated but never entirely cured. He has had a discharge off and on till the present time. He had malaria at 18 but no jaundice.

Present Trouble.—Eleven years ago, four years after the attack of gonorrhea, he had a slight pain in the back between the shoulders, which gradually increased in severity, especially on motion, until in three or four weeks the back became stiff. He occasionally had pain in the right hip, which increased in severity until he had to go to bed, where he remained for nine months. Pain in both shoulder-joints on motion was severe. For two years he has complained occasionally of stiffness of the left knee-joint. Had an evening rise in temperature with sweats. During his stay in bed he wore a body cast and both legs were extended. On being freed from the cast the right hip was found firmly ankylosed and both legs were extended. Under anesthesia the motion in the hips was restored but within a few weeks they again became stiff. About four years ago the hip-joint (left) became painful. He went to bed but kept up passive motion in the joint. In three or four weeks it became stiff and ankylosed, so that after four years both hips were stiff and ankylosed. He has also had much pain in both shoulder-joints, and the stiffness which resulted has continued up to the present.

Examination.—This revealed ankylosis of all of the vertebræ from the second cervical down to and including the sacrum. There was no flexion whatever of the spine. Both hips were ankylosed with the legs slightly abducted, but otherwise practically straight; it was impossible to spread them. Patient could not sit down because of absolute lack of motion in the hips.

Treatment and Results.—The left hip was operated on first. A typical arthroplasty was done with interposition of a fascia lata flap. Buck's extension was kept on for five weeks. Complete primary union of soft parts resulted. Passive motion was resorted to earlier. At the end of six weeks he was permitted to get up and walk about and was able to bear full weight on the limb without the slightest discomfort. He had considerable range of motion in the hip, external and internal rotation of the thigh and excellent abduction.

The right hip was operated on next. Typical arthroplasty was done with fascia lata flap. Primary union resulted. Patient was up at the end of seven weeks. He was permitted to walk on crutches and advised to put weight on both legs. There was a little more pain in the right hip than in the left. He was able to abduct legs as much as the average individual, and at the time he left the hospital, in March, 1912, he was able to assume a semisitting position for the first time in eleven years. There was then no pain in the left hip. His range of motion will increase rapidly. He is able to balance himself on his limbs. He was an excellent patient and forced his efforts at motion (Figs. 84-88).

This is only one of the interposing tissues which may be used in the operation. It serves, in the main, to provide a perfectly smooth acetabular margin, so that it will at no time subsequently permit of the reformation of a bony ankylosis or bone collar formation. This procedure thus far does not disturb the attachment of the gluteus maximus.

The next step in the operation is the formation of a new acetabular cavity and a new femoral head. The first thing to be done is to separate the ankylosed head from the ilium as near the normal anatomic line as possible. This is done by chiseling out the bony tissue filling the acetabular cavity, by means of an ordinary carpenter's curved chisel, about 1½ inches in width. With properly directed blows and sufficient force, the chisel is driven in obliquely toward the acetabular cavity for the depth of one inch all the way around the head, as near the normal conformation as possible. When the chiseling process is complete, with the chisel as a lever and the thigh as an assistant, the head is fractured out of the acetabulum, the acetabular cavity is then fashioned with my special globular drill or reamer, so as to receive the new femoral head, which will be similarly fashioned from the bony mass chiseled out of the acetabulum. For this purpose use is made of my specially constructed cup-shaped end-mill, making it possible to provide a new femoral head of normal conformation and smoothness. (Figs. 7 and 8).

These two instruments used in fashioning the acetabulum and the femoral head constitute, in reality, parts of the same appliance; the globular portion fits into the cup-shaped portion in such a manner that unless the interposing tissues are in position the fit is perfect.

The main reliance for obviating the reoccurrence of the ankylosis is placed on the flap of the deflected fascia lata, which is made by splitting the original U-shaped flap. This flap is dissected from the subcutaneous fatty tissue which formed a part of the original skin and fascia flap, the base of the U being directed upward so that the nutrition of the flap is preserved as much as possible to insure its continued vitality. Grasping the edge of the flap with tissue forceps, it is drawn into the joint, passed over the femoral head and the edge may be sutured to the acetabular margin or to the remnant of the capsular ligament still attached to the neck of the bone with phosphor-bronze wire, thus forming a complete covering for the head and neck of the femur. When the head is placed into the acetabular cavity, this flap also serves as a lining for this cavity reenforcing the capsular ligament, although the latter is used mainly for the purpose of preventing a "locking" of the joint by the formation of exostosis from the acetabular rim.

ANKYLOSIS OF HIP

CASE 23.—*Patient.*—Mrs. B. S., aged 32, was admitted to Mercy Hospital Jan. 1, 1912. Her mother died of tuberculosis when patient was 3 years old. Personal history was negative.

Present Trouble.—Four years ago, following severe exposure to cold, the patient complained of severe pain in the right shoulder and hip for which she took morphin. Following this she had a severe chill, but does not know whether she had any temperature elevation. Pain was present, radiating from hip to groin, severe in character and extending upward over the entire abdomen. The abdomen was very tender to pressure; pain most intense in right groin. This lasted for two weeks. Shortly afterward she had fever for two weeks, then a leukorrheal discharge which subsided with the pain. There was a mass in the right side of the abdomen about the size of a teacup. She did not menstruate for six months.

The pain in the right hip increased on motion and she remained in bed for three months, the hip not being moved. When motion was attempted in the hip it was found to be ankylosed. The right knee was also stiff, but was relieved by massage and active motion. No other joint was involved, but the ankylosis of the hip was complete and the leg was adducted across the middle line, occluding the inlet and outlet to the pelvis.

Treatment.—A typical arthroplasty was done on the hip with the interposition of a pedicled fascial flap. The wound was closed in the regular way without drainage. At the end of seven days a hematoma threatened to open the line of suture. Some of the stitches were removed to allow the blood to escape. Eight or ten days after this the patient had a pyocyaneus infection with a large quantity of greenish purulent discharge. She was given three injections of a stock vaccine and the discharge subsided entirely. The case went on to primary union.

Result.—She left the hospital four months after the operation, and at that time was able to put the limb through a great latitude of motion and practically without pain. Following her return home she had two attacks of suppuration from the trochanter. This was believed to be due to the iron nails. She came back to the hospital and the iron nails were removed. Primary union resulted and there was no return of manifestation of the ankylosis. She walks with an elevation on the heel of her shoe of three-quarters of an inch. There is practically no limitation of motion in the hip; no pain (Figs. 92-95).

It is very important, and cannot be emphasized sufficiently, that the entire articular surfaces of the bones must be covered by fascia if good functional results are to be expected. Everything being in readiness for reposition of the head of the femur, the leg is extended and adducted, and internal rotation applied, when it will be found that the head of the femur slides into the acetabular cavity freely and remains there without accessory retention.

The next step is to replace the trochanter, which it will be remembered was sawed off from the bone without disturbing the muscular attachment. Then the ends of the obturator and pyriformis muscles are reunited. The trochanter is brought down, fitted on to its original position, and securely fastened with a wire nail, eight or ten-penny, depending on the size of the trochanter and the degree of tension which may be required. This nail is driven into the bone along the axis of the neck.

The deep fascia is reapproximated by means of phosphor-bronze wire, the superficial structures are sutured with chromicized catgut, and the skin with interrupted silkworm-gut, and horsehair sutures. No drainage is used.

The field of operation is freely dusted with bismuth subiodid powder, and the wound is then sealed with gauze saturated with collodion. A large pad of 5 per cent. moist phenolized gauze is placed over the hip, extending from 4 to 6 inches beyond the line of incision on either side. A sterile cotton dressing is placed over all, and held firmly in place by spica bandages and wide strips of adhesive plaster. The patient is then placed in the Rainey Travois splint and a Buck's extension, with 20 pounds' weight, applied to the leg in the usual manner to overcome the involuntary muscular contraction of the flexors and adductors of the thigh, and to prevent pressure necrosis of the newly interposed flap. The limb is dressed in an abducted position.

The patient is kept in bed in the dorsal position, as quiet as possible, for from seven to ten days, when passive motion is instituted. This consists at first in raising and lowering the leg as much as conditions will permit, and in attempting to flex the leg on the thigh and the thigh on the abdomen. This is done every day, and at the beginning of the second or third week, depending on the progress of the case, lateral movements are begun, consisting in forcible abduction and adduction. The splint is allowed to remain on for about three to four weeks. It is removed when it is apparent that the patient has a fair degree of motion in the joint, without much pain or discomfort. He is then allowed to be up and around on crutches and is encouraged to swing the leg in all directions, increasing motion in the joint by every means possible. The stitches are usually removed on the tenth to the twelfth day, and a fresh dressing is made, minus the collodion. The subsequent treatment of the wound is that usually employed in any operative procedure.

Knee.—The knee is the most difficult joint in which to get a perfect restoration of function and perfect approximation of the two joint surfaces. In the plan of reconstruction I adopt two courses: The first one used in my original cases was the implantation of the fascia lata and vastus externus as the interposing tissue.

The usual preparations for operation are made. An Esmarch constrictor is placed around the thigh high up. In our original operation a vertical incision was made just to the outer side of the patella, extending 6 inches above and 3 inches below the joint. The wound margins were well retracted, so as to expose the field of operation. The patella was then freed from the femur with scalpel and chisel and another vertical incision—only 4 inches long, however—was made over the inner side of the joint. The joint line of ankylosis was then opened and the patella was separated from its union with the femur, without, however, dividing the ligamentum patellæ. It was elevated; the curved chisel then separated the tibia from the femur on each side, maintaining the normal anatomic conformation of the joint surfaces of the external and internal condyles of the femur. With a smaller curved chisel a piece of the external and internal tuberosity of the tibia was removed sufficiently deep to permit the flexed leg to assume a straight position without putting tension on the popliteal structures. This is artistically shaped to resemble the normal articular concavities of the external and internal tuberosities of the tibia, with their semilunar cartilages attached. The intercondyloid tubercle and ridge should be preserved in an exaggerated degree. The intercondyloid groove of the femur should be excavated deep enough to accommodate itself to the exaggerated tubercle and ridge.

ANKYLOSIS OF KNEE

CASE 24.—*Patient.*—Miss L. L., aged 21, was admitted to Mercy Hospital Dec. 24, 1908. Her father died of carcinoma of stomach; family history was otherwise negative. She had had diphtheria, measles, pains in calf of legs and in arms during a cold which was called rheumatism.

Present Trouble.—In July, 1907, a finger of the right hand was infected while picking flowers. She thinks she was poisoned by an insect. The evening of the next day the finger was

V. 5
1912

contracted and painful and during the night became swollen. She was awakened at 4 a. m. by severe pain radiating into hand and forearm. At 9 a. m. the finger was much swollen. An incision was made and pus and dark blood were evacuated. A linseed poultice was then applied. At 8 p. m. pain was very severe and extended above the elbow. The swelling increased extending into the shoulder, and she had severe pains in muscles in back of neck. She had high temperature (how high not stated). On the sixth day she was taken to the hospital. She was delirious part of the time. The infection extended to the muscles of the neck and lower jaw. She developed trismus. This condition continued for nine days when improvement began. Four weeks later while walking she had a sudden severe pain in the knee-joint. She went to bed and the pain disappeared as suddenly as it came. It returned in the evening and the knee began to swell and redden. On the tenth day the joint was much swollen and flexed. Under anesthesia, the leg was straightened and put in a tin splint. The infection in the finger and neck had subsided almost completely. September 1, the knee was opened under anesthesia. The swelling gradually subsided but the knee could not be flexed because of pain. She went home October 1 with a plaster mold extending from ankle to hip and the leg straight. Under massage the pain gradually disappeared, but the knee was stiff and the leg straight. March 1, 1908, adhesions were broken up and extension applied. Every third day the knee was bent forcibly without anesthesia. She remained in the hospital five weeks, when the knee was straight and stiff. The joint gradually flexed again. July 16, knee was again bent under anesthesia and that evening she had a slight fever and severe local pain. The knee was constantly under treatment with frequent attempts made to flex it. Each attempt was followed by fever and severe pain. About the middle of September the knee became flexed to its present extent and has remained so.

Examination—There was bony ankylosis of right knee with knee flexed at a bad angle.

Treatment.—Typical arthroplasty of the knee was done with a splitting operation of the patella. The interposition of short lateral flaps was resorted to in this case, and the external half of the patella was rotated 180 degrees so as to form the external half. Primary union of the superficial and deep flaps resulted. Passive motion was resorted to early.

Result.—This patient was able to walk and sustain the full weight on her limb five weeks and six days after the operation. She could flex the limb almost to right angles eight weeks after the operation. Since that time she has learned to flex the knee to an acute angle with the thigh and to extend it fully and voluntarily. She has no pain whatever on walking and the slight limp can scarcely be detected. She has ½ of an inch elevation on the heel of her shoe to compensate for the shortening. In the skiagram it can be seen that there is a close conformation to the normal joint in the one operated on, so that it is almost impossible to determine which was the knee operated on (Figs, 109-113).

An interposing flap of tissue in these cases consisted of fascia lata, with a thin layer of muscle removed from the outer surface of the vastus externus, the base being directed downward and slightly anterior. This flap was turned over the outer condyle of the femur, drawn through the joint between the femur, patella and tibia by means of heavy catgut sutures which had been passed through the free edge of the flap, and through the fibrous capsule on the inner side of the joint. These sutures were tied in the inner incision.

A similar, though smaller, flap of tissue was dissected from the vastus internus and placed between the patella and the femur on the inner side. This flap was sutured to the capsule with catgut. After removing the Esmarch constrictor, all bleeding points were secured, and the wound closed with catgut sutures. We also employed at that time a small drain, which was placed in the upper angle of the external wound.

This operation gave splendid results, but it was rather extensive and complicated, and I have modified it it somewhat in a number of points. When performing the operation of arthroplasty on the knee, it is best for the surgeon to stand on the right side of the patient. As in the case of the hip operation, a U-shaped incision is made, extending through the skin and superficial areolar fascia. The incision is begun one inch above the highest level of the patella and one inch to the inner side. It extends downward and across the lower end of the patella to the external condyle. The incision is then extended one inch upward, passing to the outer side of the patella, and stopping at the level of the starting-point. The flap is then freed carefully, caution being observed not to buttonhole it and including, besides the skin, the superficial fat. The prepatellar bursa is not disturbed in any way. When this flap is lifted up the anterior surface of the knee-joint is exposed. The base of the flap is upward.

Next a second U-shaped incision is made, with the base downward and encircling the patella, passing within half an inch of its free border above and on both sides. This incision passes through the aponeurosis of the patella. The margins of the flap are dissected free up to the border of the patella, leaving a fringe of the aponeurosis, about half an inch in extent, attached to the margin of the patella all the way around except where it joins with the ligamentum patellæ and the quadriceps tendon. Thus the patella, femur and tibia are exposed and the ankylosis is within easy reach. The patella is then chiseled free from its attachment to the femur so that it is freely movable.

The normal anatomic conformation of the anterior surface of the femur must be preserved, in order that the patella may subsequently find its natural resting-place. Therefore, in doing the chiseling work, the chisel should be directed downward and inward toward the median line from both sides. The same chisels are used in this operation as in the hip arthroplasty, suiting the size and shape of the chisel to the work to be done.

ANKYLOSIS OF PATELLA

CASE 25.—*Patient.*—Mrs. M. G., aged 36, was admitted to Mercy Hospital Oct. 18, 1909. Her father died of brain abscess at 71 years; her mother of tuberculosis of the lungs. She had had measles, mumps, whooping-cough and chicken-pox when a child.

Present Trouble.—In January, 1906, the patient had pain, dulness and stiffness in the muscles of the thighs which persisted for weeks, together with soreness, pain, stiffness and swelling of the left hand and right foot. There was no fever, chills, or trauma. After four weeks the symptoms were referable only to the left knee and right hand. She had profuse sweats, high fever, but no chills. She was in bed for four months, during which time the knee was so painful that she could not lift it off the pillow. When she got out of bed she could flex the leg a little but could not walk without crutches for over a week. She had a forcible flexion and extension under anesthesia in 1908, after which she had more extension than before.

Examination.—There was bony ankylosis between the tibia and femur and the patella and femur, with considerable flexion of the knee.

Treatment.—A regular arthroplasty was done with the interposition of two short lateral flaps. The patella was divided by splitting it horizontally, leaving the internal and upper portion attached to the quadriceps tendon and the lower portion attached to the ligamentum patellæ. The normal conformation of the tibia was secured after chiseling the tibia free, and removing enough of its upper end to permit of extension of the limb into a straight position. The tuberosities of the tibia were remodeled to their normal anatomic conformation.

The lateral fascial flaps were inserted and the lower half of the patella rotated 180 degrees and attached to the upper part

Result.—There was primary union of all the soft parts. The patient was ordered passive motion on the third week. She rapidly developed a flexion to almost right angles. She could flex and extend the leg voluntarily before she left the hospital. One year after the operation, the flexion was to an acute angle with the thigh without causing pain. There was no fatigue on exercise; both legs were equally strong. The result was excellent (Figs. 89-91).

Instead of using the fascia lata as before, I now take two lateral rectangular flaps, measuring 2½ inches in length and breadth, from the inner and outer side of the joint—the flap including capsule, ligament and subcutaneous fat. The base of each flap is directed downward, and is left attached to the base of the tuberosities of the tibia, just below the line of bone division to be made later. This flap must include all of the lateral ligaments, fascia and fat, because they will serve as the interposing membrane to be placed between the freshened bony surfaces of the tibia and femur and prevent the recurrence of an ankylosis.

The patella has been handled in four different ways:

1. By using an interposing flap from the vastus externus and vastus internus to prevent reconsolidation of the under surface of the patella with the femur.

2. Splitting it into two parts from above downward, and then turning the upper half under the lower half, so that the smooth aponeurotic surface came next to the femur, thus making it impossible for bony union to take place.

3. Freeing the vastus externus and internus attachments for a distance of 2 inches above and below the patella; next dislocating it from side to side during the operation; and when the limb is straightened out and the interposing flap is in position a 180° rotation of patella is made, so that the upper surface of the patella now becomes its articular surface. The vastus externus and internus are now sutured to the opposite sides from which they were freed, to prevent luxation of the patella and the return to its former position.

4. Covering the under surface of the patella and the entire articular surface of the femur with a fascial graft taken from and detached from the trochanteric zone of the fascia lata, without rotation of the patella.

I have had good results with all these methods. The rotation, however, is the simplest one and after operation gives an additional leverage to the quadriceps tendon. It has some disadvantages, as it taxes the vitality of the skin flaps.

Since adopting this plan, I have encountered cases in which so many operations had been performed about the knee-joint that even the capsular flap could not be secured in the adjoining tissues. Then I resorted to the final or third means for securing the interposing flap. After denuding the bone and freshening its surfaces, molding them, removing as much as was necessary of the upper end of the tibia or lower end of the femur to completely extend the limb, I took a portion of fascia lata and trochanteric bursa with the overlying flap of fat, measuring 3½ by 5 inches, from the patient's hip and interposed it *en masse*, in the knee-joint, suturing it first to the posterior condyloid portion of the capsule; second, bringing it clear over the anterior surface of the femur and upper end of the patella; third, accurately suturing it on both sides and both ends, so that it covered all of the lower end of the femur and prevented a bony contacting of either the patella or tibia with the femur.

ANKYLOSIS OF KNEE

CASE 26.—*Patient.*—Miss V. S., aged 12, was admitted to Mercy Hospital Oct. 30, 1911.

Present Trouble.—Seven years ago she slipped on the sidewalk, striking the knee against the ground. The physician called at the time said no fracture was sustained and merely applied a bandage. The following day she was able to walk with comfort and the injury was forgotten. About four weeks later patient complained of pain in the right knee and limped when walking. These symptoms increased in severity and the knee became swollen. A physician advised operation. A U-shaped incision was made with the curve upward and the base on a level with the tuberosity of the tibia. The patella was divided and the articular surface removed. The capsule of the joint was excised, the cartilaginous ends of the bone sawed off, and an end-to-end approximation made of the femur and tibia. The patella was sutured with silver wire—all with the purpose of securing a bony ankylosis of the femur, tibia and patella. The result was successful. The flap evidently suppurated and was drained. The epiphyseal lines were not removed as the bones had continued to grow in length. The patient was in the hospital a year, the knee discharging all the time. When discharged from the hospital the right knee was healed with a complete bony ankylosis. The leg has remained stiff and slightly flexed, about 35 degrees, causing the pelvis and spine to tilt when walking. This has caused some lordosis of the lumbar spine. Occasionally she has slight pain in the joint but it has not been swollen since she left the hospital. The description of the operation is taken from the physical findings and the skiagrams. The name of the operator is unknown.

Examination.—This showed the condition mentioned above with so much superficial tissue around the joint that it was impossible to get a flap to interpose between the ends of the bone in an arthroplasty. It was therefore decided to take the trochanteric portion of the fascia lata and a portion of the gluteus maximus for the interposing flap. It appeared that it would be a difficult case, but that the worst result that could be obtained was a straight, stiff leg.

Treatment.—A U-shaped incision was made through the cicatricial tissue of the former scar. The lines of union of the joint were exposed. The anterior intercondyloid compact bony wall of the femur was chiseled out with the remnant of patella, the quadriceps tendon and ligamentum patellæ remaining attached. The femur and tibia were then chiseled free from each other with a large curved chisel, so as to imitate the normal convexity of the femoral condyle, driving the chisel on each side inward to the mid-intercondyloid line. The leg was then fractured and the surfaces of the femur and tibia exposed by dislocating the patella outward and flexing the knee. One-half inch of tibia was removed, reserving an intercondyloid elevation resembling the intercondyloid tubercle of the tibia. The tuberosities of the tibia were excavated to the normal concavity. The end of the femur was then restored to its normal conformation. An aponeurotic flap was then removed from the trochanteric portion of the fascia lata, carrying with it ½ inch of adipose tissue. It measures 4 by 5½ inches. It was sutured over the lower end of the femur and approximated to the posterior intercondyloid connective tissue, remnants of the crucial ligaments and of the posterior capsule. Laterally, it was sutured to the connective tissue over the condyles, and it extended upward beneath the patella, being attached to the under-surface of the quadriceps tendon. Thus was procured a good interposing flap between the tibia and patella, on the one hand, and the femur on the other. The leg was straightened, the vastus internus reunited to the margin of the quadriceps, and the U-shaped skin-flap sutured in place. Considerable of the scar tissue of this flap sloughed, but the new joint remained aseptic.

The child was very nervous and would not allow passive motion. Notwithstanding all of these drawbacks, she has considerable motion in the joint. The leg is perfectly plumb under her and she will have a good functional result. This shows that a flap from a distant part of the body may be detached and transplanted into the joint and serve the purpose for which it was intended. This was my original ideal plan for arthro-

V. 5
1912

plasty, but there was no case in which I was compelled to adopt it, and I did not feel justified to hazard a case when I was getting such good functional results from the attached flap method (Figs. 98-100).

The patella, from the previous tuberculosis around the joint, had smelted into and become a part of the anterior surface of the femur. It was chiseled out of the anterior surface of the femur, retaining its quadriceps and ligamentum patellæ attachment so as to make a fairly good new patella.

Notwithstanding the sloughing of the tip of flap and a part of the skin which was cicatricial, the transplanted flap healed in perfectly and the conformation of the limb and the motion thirty days after the operation was as good as any of the previous pedicle flap results in that period. *And this, I believe, is the final step in the production of new joints, namely, that the detached autogenous transplantation of the interposing flap—the ideal material — is the trochanteric fascia lata and bursa.*

This establishes a principle that the autogenous transplant can be used efficiently for this purpose. A much smaller one than I used will suffice in the knee, by simply covering the tibial head and possibly the under surface of the patella, in place of the femoral head.

With this digression from the procedure which is usually employed in this operation and which is permissible here because of the desirability of presenting in a concise way all that may be said at this time about the interposing flap, I will now return to a discussion of the further steps of this operation.

Having made the initial incision, as described, exposed the joint, made the flaps and separated the patella from its attachment to the femur, we are now ready to sever whatever ankylosis may exist between the femur and the tibia. This is also done by means of a carpenter's chisel, using both grooved and straight chisels, as may be necessary.

The points to be observed at this stage of the operation are: 1. *The normal configuration of the articular surface of both the tibia and the femur must be reproduced as nearly as possible, so that luxation of the joint will be prevented.* 2. These surfaces must be so fashioned that the leg is strictly in plumb. 3. Sufficient bony tissue must be removed so that the pressure brought to bear on the interposing tissue flap will not be great enough to cause pressure necrosis.

It is not always necessary to change the conformation of the articular surface of these bones, because the ankylosis in the case may have been limited to a bony union between femur and patella. As a rule, however, most of these cases are of long standing, and there is always some bony union between all the bones of the joint. A good fit should be secured between the intercondyloid notch of the femur and the intercondyloid ridge and tuberosity of the tibia, because it is only by doing this that the femur can be steadied and luxation prevented.

It is at this stage of the operation that the interposing flaps are placed in position. These flaps are drawn inward, one from either side of the joint, over the head of the tibia, and are accurately sutured to each other over the intercondyloid ridge, a few stitches on the anterior edge securing the flaps to the base of the ligamentum patellæ. The posterior margin of each flap is sutured to the posterior wall of the capsule — which, it will be remembered, has not been disturbed at any stage of the operation. The object in view is to fix these flaps permanently on the articular surface of the tibia, so that every part of the freshened bony surface is covered by this tissue. The suture material used is phosphor-bronze wire for the deeper sutures and chromicized catgut for the periarticular.

It is now that the work on the patella is done as described above. If the knee has been flexed to a considerable degree for a long period of time, it may be necessary to shorten the quadriceps tendon. This tendon is vital to the motion of the joint. The patella, on the other hand, is of less importance — in fact, I have been able to demonstrate time and again that it may be removed entirely and yet a splendid result may be obtained.

It is not always necessary to rotate the patella, except when ankylosis is apt to reoccur. As a rule, however, I rotate the patella as described above, suture the vastus muscles in place, remove the constrictor and close the wound. This closure is the same as that described in the operation on the hip.

TUBERCULOSIS OF PATELLA

CASE 27.—*Patient.*—Mr. DeR., aged 27, was admitted to Mercy Hospital Sept. 11, 1907. Family history was negative. He was a hard drinker for years. He had a Neisserian infection six years ago. Recovery was uncomplicated. Nine years ago he had two lesions on the foreskin. They were painless but kept enlarging till practically the whole foreskin was involved. Lesions persisted for about four months. Four months later a single similar lesion appeared on the prepuce; it disappeared under treatment in about a week. Eight months after this one healed, another lesion of the same character appeared. This also disappeared under treatment in about a week. He has had no secondary manifestations of a luetic character. Romberg sign is absent. Pupils react to accommodation and to light. There is no muscular incoordination. During the past year he has at irregular intervals, perhaps to the number of 15 or 20, experienced girdle sensations. He had measles and typhoid during childhood, uneventful recovery; also had skin lesions on anterior surface of both legs during early childhood. Scars present now show location of original trouble. Ten years ago he was operated on for appendicitis; made a good recovery. Two years ago was operated on for hydrocele. During the past three years at irregular intervals, and always following exposure or chilling, has had "rheumatic pains" in muscles of arms and chest.

Present Trouble.—Two years ago while in bed convalescing from his hydrocele operation, he had sudden sharp sticking pains in left patellar region. (Gives no history of any injury, slight or otherwise, to left knee.) The initial pain lasted a few hours, and then the character changed to a dull ache, which was constantly present. This was lessened when he threw the weight of his body on his left foot. From the first he noticed a slight swelling of the left knee, and the left patella seemed larger than the right one. In the next six months the increase of swelling in the knee and the enlargement of the patella were very slow, but were noticeable. Six months after the onset of the trouble, while stepping up on a curb stone, his foot slipped, and he made a violent effort to regain his equilibrium which prevented him from falling but he experienced a sharp severe pain in the left patella, a feeling of something giving way there. He was unable to step on his left foot and describes the pain as being excruciating. He was about a block from home and alone at the time. Says it took him over a quarter of an hour to cover the distance, hopping on one leg, and hanging onto railings and supporting himself by leaning against the walls of buildings. He fainted when he reached his own doorstep. The knee swelled and the next day was about three times its original size. The swelling and acute pain gradually subsided and he was able to bear part of his weight on his left leg for about a week and a half. Since that time has had a continuous dull pain and has been unable to extend the leg on the thigh. At irregular intervals pain would be more severe and there would be more or less swelling, lasting a few days, disappearing after giving injured part a rest. There has never been any redness of the

The lateral fascial flaps were inserted and the lower half of the patella rotated 180 degrees and attached to the upper part

Result.—There was primary union of all the soft parts. The patient was ordered passive motion on the third week. She rapidly developed a flexion to almost right angles. She could flex and extend the leg voluntarily before she left the hospital. One year after the operation, the flexion was to an acute angle with the thigh without causing pain. There was no fatigue on exercise; both legs were equally strong. The result was excellent (Figs. 89-91).

Instead of using the fascia lata as before, I now take two lateral rectangular flaps, measuring 2½ inches in length and breadth, from the inner and outer side of the joint—the flap including capsule, ligament and subcutaneous fat. The base of each flap is directed downward, and is left attached to the base of the tuberosities of the tibia, just below the line of bone division to be made later. This flap must include all of the lateral ligaments, fascia and fat, because they will serve as the interposing membrane to be placed between the freshened bony surfaces of the tibia and femur and prevent the recurrence of an ankylosis.

The patella has been handled in four different ways:

1. By using an interposing flap from the vastus externus and vastus internus to prevent reconsolidation of the under surface of the patella with the femur.

2. Splitting it into two parts from above downward, and then turning the upper half under the lower half, so that the smooth aponeurotic surface came next to the femur, thus making it impossible for bony union to take place.

3. Freeing the vastus externus and internus attachments for a distance of 2 inches above and below the patella; next dislocating it from side to side during the operation; and when the limb is straightened out and the interposing flap is in position a 180° rotation of patella is made, so that the upper surface of the patella now becomes its articular surface. The vastus externus and internus are now sutured to the opposite sides from which they were freed, to prevent luxation of the patella and the return to its former position.

4. Covering the under surface of the patella and the entire articular surface of the femur with a fascial graft taken from and detached from the trochanteric zone of the fascia lata, without rotation of the patella.

I have had good results with all these methods. The rotation, however, is the simplest one and after operation gives an additional leverage to the quadriceps tendon. It has some disadvantages, as it taxes the vitality of the skin flaps.

Since adopting this plan, I have encountered cases in which so many operations had been performed about the knee-joint that even the capsular flap could not be secured in the adjoining tissues. Then I resorted to the final or third means for securing the interposing flap. After denuding the bone and freshening its surfaces, molding them, removing as much as was necessary of the upper end of the tibia or lower end of the femur to completely extend the limb, I took a portion of fascia lata and trochanteric bursa with the overlying flap of fat, measuring 3½ by 5 inches, from the patient's hip and interposed it *en masse*, in the knee-joint, suturing it first to the posterior condyloid portion of the capsule; second, bringing it clear over the anterior surface of the femur and upper end of the patella; third, accurately suturing it on both sides and both ends, so that it covered all of the lower end of the femur and prevented a bony contacting of either the patella or tibia with the femur.

ANKYLOSIS OF KNEE

CASE 26.—*Patient.*—Miss V. S., aged 12, was admitted to Mercy Hospital Oct. 30, 1911.

Present Trouble.—Seven years ago she slipped on the sidewalk, striking the knee against the ground. The physician called at the time said no fracture was sustained and merely applied a bandage. The following day she was able to walk with comfort and the injury was forgotten. About four weeks later patient complained of pain in the right knee and limped when walking. These symptoms increased in severity and the knee became swollen. A physician advised operation. A U-shaped incision was made with the curve upward and the base on a level with the tuberosity of the tibia. The patella was divided and the articular surface removed. The capsule of the joint was excised, the cartilaginous ends of the bone sawed off, and an end-to-end approximation made of the femur and tibia. The patella was sutured with silver wire—all with the purpose of securing a bony ankylosis of the femur, tibia and patella. The result was successful. The flap evidently suppurated and was drained. The epiphyseal lines were not removed as the bones had continued to grow in length. The patient was in the hospital a year, the knee discharging all the time. When discharged from the hospital the right knee was healed with a complete bony ankylosis. The leg has remained stiff and slightly flexed, about 35 degrees, causing the pelvis and spine to tilt when walking. This has caused some lordosis of the lumbar spine. Occasionally she has slight pain in the joint but it has not been swollen since she left the hospital. The description of the operation is taken from the physical findings and the skiagrams. The name of the operator is unknown.

Examination.—This showed the condition mentioned above with so much superficial tissue around the joint that it was impossible to get a flap to interpose between the ends of the bone in an arthroplasty. It was therefore decided to take the trochanteric portion of the fascia lata and a portion of the gluteus maximus for the interposing flap. It appeared that it would be a difficult case, but that the worst result that could be obtained was a straight, stiff leg.

Treatment.—A U-shaped incision was made through the cicatricial tissue of the former scar. The lines of union of the joint were exposed. The anterior intercondyloid compact bony wall of the femur was chiseled out with the remnant of patella, the quadriceps tendon and ligamentum patellæ remaining attached. The femur and tibia were then chiseled free from each other with a large curved chisel, so as to imitate the normal convexity of the femoral condyle, driving the chisel on each side inward to the mid-intercondyloid line. The leg was then fractured and the surfaces of the femur and tibia exposed by dislocating the patella outward and flexing the knee. One-half inch of tibia was removed, reserving an intercondyloid elevation resembling the intercondyloid tubercle of the tibia. The tuberosities of the tibia were excavated to the normal concavity. The end of the femur was then restored to its normal conformation. An aponeurotic flap was then removed from the trochanteric portion of the fascia lata, carrying with it ½ inch of adipose tissue. It measures 4 by 5½ inches. It was sutured over the lower end of the femur and approximated to the posterior intercondyloid connective tissue, remnants of the crucial ligaments and of the posterior capsule. Laterally, it was sutured to the connective tissue over the condyles, and it extended upward beneath the patella, being attached to the under-surface of the quadriceps tendon. Thus was procured a good interposing flap between the tibia and patella, on the one hand, and the femur on the other. The leg was straightened, the vastus internus reunited to the margin of the quadriceps, and the U-shaped skin-flap sutured in place. Considerable of the scar tissue of this flap sloughed, but the new joint remained aseptic.

The child was very nervous and would not allow passive motion. Notwithstanding all of these drawbacks, she has considerable motion in the joint. The leg is perfectly plumb under her and she will have a good functional result. This shows that a flap from a distant part of the body may be detached and transplanted into the joint and serve the purpose for which it was intended. This was my original ideal plan for arthro-

V. 5
1912

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Notwithstanding the sloughing of the tip of flap and a part of the skin which was cicatricial, the transplanted flap healed in perfectly and the conformation of the limb and the motion thirty days after the operation was as good as any of the previous pedicle flap results in that period. *And this, I believe, is the final step in the production of new joints, namely, that the detached autogenous transplantation of the interposing flap—the ideal material — is the trochanteric fascia lata and bursa.*

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With this digression from the procedure which is usually employed in this operation and which is permissible here because of the desirability of presenting in a concise way all that may be said at this time about the interposing flap, I will now return to a discussion of the further steps of this operation.

Having made the initial incision, as described, exposed the joint, made the flaps and separated the patella from its attachment to the femur, we are now ready to sever whatever ankylosis may exist between the femur and the tibia. This is also done by means of a carpenter's chisel, using both grooved and straight chisels, as may be necessary.

The points to be observed at this stage of the operation are: 1. *The normal configuration of the articular surface of both the tibia and the femur must be reproduced as nearly as possible, so that luxation of the joint will be prevented.* 2. These surfaces must be so fashioned that the leg is strictly in plumb. 3. Sufficient bony tissue must be removed so that the pressure brought to bear on the interposing tissue flap will not be great enough to cause pressure necrosis.

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Present Trouble.—Two years ago while in bed convalescing from his hydrocele operation, he had sudden sharp sticking pains in left patellar region. (Gives no history of any injury, slight or otherwise, to left knee.) The initial pain lasted a few hours, and then the character changed to a dull ache, which was constantly present. This was lessened when he threw the weight of his body on his left foot. From the first he noticed a slight swelling of the left knee, and the left patella seemed larger than the right one. In the next six months the increase of swelling in the knee and the enlargement of the patella were very slow, but were noticeable. Six months after the onset of the trouble, while stepping up on a curb stone, his foot slipped, and he made a violent effort to regain his equilibrium which prevented him from falling but he experienced a sharp severe pain in the left patella, a feeling of something giving way there. He was unable to step on his left foot and describes the pain as being excruciating. He was about a block from home and alone at the time. Says it took him over a quarter of an hour to cover the distance, hopping on one leg, and hanging onto railings and supporting himself by leaning against the walls of buildings. He fainted when he reached his own doorstep. The knee swelled and the next day was about three times its original size. The swelling and acute pain gradually subsided and he was able to bear part of his weight on his left leg for about a week and a half. Since that time has had a continuous dull pain and has been unable to extend the leg on the thigh. At irregular intervals pain would be more severe and there would be more or less swelling, lasting a few days, disappearing after giving injured part a rest. There has never been any redness of the

knee during these attacks. There has been a steady loss of weight, with a continuous decrease in general strength for the past two years, the loss in weight being about 30 pounds. During the past three years, patient had had night sweats nearly every night and says that there has been an evening rise in temperature but not as often as the sweats. Another thing the patient mentions is that after any attempt at exertion (mental or physical) the left knee—anterior surface—is bathed in copious perspiration and that perspiration is localized in this location.

Examination.—This revealed tuberculosis of the patella with foci involving both upper and lower fragments. There was a pathologic fracture a little below the middle.

Treatment.—The left knee was aspirated and about 2 ounces of serous fluid removed. The knee was injected with about one ounce of a 2 per cent. dilution of liquor formaldehydi in glycerin. At the operation the patella with its bursa was excised, detaching it from the ligamentum patellæ below and the quadriceps tendon above. The synovial membranes were somewhat thickened. There was no disturbance of the cartilage, no evidence of tuberculous infection of the joint itself. The quadriceps tendon was then split beginning half an inch above the joint, where it was separated from the patella upward for a distance of 5½ inches on parallel lines, and a strip, ¾ of an inch wide, was lifted, the base of the strip being downward. This strip was turned down over the former seat of the patella and united to the surface of the ligamentum patellæ in the manner described under the head of "Operations on the Patella." The lateral margins of the capsule were approximated so as to close the joint completely, and then the skin and other soft tissues were approximated. A plaster mold was applied (Figs. 107, 108).

Result.—Complete primary union resulted with passive motion at the end of seven weeks. The patient has perfect motion in his knee-joint; no inconvenience or discomfort from the absence of his patella. It was the excellent result obtained in this case that led me to the utilization of the quadriceps tendon as a supplement to the treatment of fractures of the patella (Figs. 101, 102).

As stated, the results in the knee are more difficult to secure than in any other joints. This is so because the knee-joint must be mechanically perfect and plumb, so that it may be freely movable, without causing any pain or discomfort.

The wound is sewed up without drain. The skin is freely powdered with bismuth subiodid, a collodion dressing is applied, with 5 per cent. moist phenol (carbolic) gauze over this, and then the usual dry dressing. A Buck's extension, with a 12-pound weight, is attached to the leg and is worn continuously to reduce the interarticular pressure, and thus preventing necrosis of the flaps, and to maintain the limb in a straight position. The limb is placed in a plaster cast, and passive and active motion are begun, as after the hip operation. When these patients become ambulant, we apply a laced leather splint or legging, reaching from the groin to the ankle. This splint is patterned after the plaster mold of the leg, so as to secure an accurate fit and give the needed support to the knee. To favor increased flexion of the limb, the patient bends the knee passively over a stand designed by Dr. N. B. McCauley, a sand-bag being attached to the toes (Fig. 103).

(To be continued)

Ergot to Prevent Postanesthetic Vomiting.—A. Sansores, Jr., states that a subcutaneous injection of ergot will prevent or arrest the vomiting after chloroform anesthesia. He says his experience in 150 cases has confirmed this. His communication on the subject is published in the *Prensa Medica*, 1912, p. 37; he ascribes the effect mainly to the vasoconstricting action of the ergot reducing the congestion in the stomach from the toxic influence of the drug

PROCTOCLYSIS

SOME CLINICAL AND EXPERIMENTAL OBSERVATIONS

HUGH H. TROUT, M.D.
ROANOKE, VA.

The suggestion of employing tap water in the place of the usual so-called normal saline solution was first brought forward by Dr. George B. Lawson, in 1908, and to him is largely due any credit which might result from this study.

A glance at the literature[1] on proctoclysis reveals so many appliances that a review would in itself constitute an article.

We, of the Jefferson Surgical Hospital, have used the visible dropper first described in THE JOURNAL[2] in the majority of cases. Also a small soft rubber catheter has taken the place of the hard nozzle of Murphy except in cases in which the patient's power of resistance was so low the discomfort of the hard plug was not painful, and in those cases in which it was desirable to insert large quantities of tap water, or solution.

Proctoclysis has been employed in all the cases, except those in which the type of operation prevents, e. g., perineal repairs, hemorrhoids, etc.

The anesthetics have been nitrous oxid and oxygen, ether, chloroform and cocain. The types of cases include the vast majority of all surgical and gynecologic operations.

1. In addition to the other references cited later in this article, the following may be listed:

Discussion of Priority in Use of Vacuum Bottle, THE JOURNAL A. M. A., Jan. 22, 1910.
Babler, E. A.: A Satisfactory, Inexpensive and Portable Proctoclysis Apparatus, THE JOURNAL A. M. A., March 12, 1910.
Magnuson, D. P.: Saline Proctoclysis Apparatus, Surg., Gynec. and Obst., February, 1910.
McLean, Angus: New Apparatus for Proctoclysis, THE JOURNAL A. M. A., April 2, 1910.
Scott, E. K.: Proctoclysis and a New Instrument, THE JOURNAL A. M. A., April 9, 1910.
Ramsey, J.: An Apparatus for the Continuous Administration of Saline and Other Fluids per Rectum, Australasian Med. Jour., Melbourne, March 20, 1910.
Hill, E. C.: A Simple Method of Rectal Feeding or Proctoclysis, THE JOURNAL A. M. A., Dec. 24, 1910.
Bird, M. D.: Apparatus for Proctoclysis, THE JOURNAL A. M. A., Jan. 14, 1911.
Young: Apparatus for Proctoclysis, Brit. Med. Jour., Jan. 14, 1911.
Sutton, W. S.: A Speedometer for Proctoclysis Apparatus, Surg., Gynec. and Obst., February, 1911.
Nicholson, P.: A Simple Apparatus for Proctoclysis, THE JOURNAL A. M. A., March 25, 1911.
DeWitt, W. A.: An Efficient Inexpensive Enteroclysis Apparatus, Surg., Gynec. and Obst., February, 1911.
Cannaday, J. E.: A Simple Drop Method of Giving Rectal Enemas of Normal Saline Solutions, THE JOURNAL A. M. A., April 15, 1911.
Lawson: Proctoclysis Apparatus, THE JOURNAL A. M. A., April 18, 1908.
Seidel, H.: Der protrahierte rektale Kochsalzeinlauf, Zentralbl. f. Chir., Leipsic, March 12, 1908.
Eisendrath, D. N.: Apparatus for Continuous Saline Enemas in Peritonitis, THE JOURNAL A. M. A., Aug. 1, 1908.
Murphy, J. B.: Perforative Peritonitis, Surg., Gynec. and Obst., June, 1908.
Newman: Continuous Enteroclysis (Apparatus), THE JOURNAL A. M. A., April 17, 1909.
Wechsler: An Apparatus to Keep Enteroclysis Solutions Hot, THE JOURNAL A. M. A., April 17, 1909.
Paterson: Saline Proctoclysis Apparatus, Brit. Med. Jour., April 29, 1909.
Mersen: Proctoclysis, THE JOURNAL A. M. A., June 12, 1909.
Kemp, R. C.: A New Container for the Preservation of a Constant Temperature of Saline Solutions for Rectal Irrigation, New York Med. Jour., Aug. 14, 1909.
Paterson, H. J.: Continuous Proctoclysis, Brit. Med. Jour., Aug. 28, 1909.
Worth, P. S.: Apparatus for Proctoclysis, Surg., Gynec. and Obst., November, 1909.
Harbin: Apparatus for Proctoclysis at an Even Temperature, THE JOURNAL A. M. A., Dec. 25, 1909.
Garret: An Improved Saline Transfusion Apparatus, THE JOURNAL A. M. A., Dec. 25, 1909.
Maguire: Saline Container and Dropper, Jour. Michigan State Med. Ass'n, December, 1910.
Laurie: Saline Infusion Indicator, Brit. Med. Jour., April 3, 1909.
Wainwright: Saline Apparatus, Brit. Med. Jour., Oct. 23, 1909.

2. Lawson: THE JOURNAL A. M. A., April 18, 1908, p. 1267.

The method of comparison has been to alternate the cases as they leave the operating-room, irrespective of the type of case, duration of operation or any other factor, and in this study of 400 operations it is interesting to notice how near an average in all respects the cases occur except in the results.

An investigation of 100 hospitals has been made to ascertain the reason of using sodium chlorid solution per rectum instead of tap water and the method of preparing the solution. In answer to the first question, one suggested that normal saline solution was employed to prevent water from dissolving "out the salts from the cells of the epithelium which takes on water to such a degree that the cells, themselves, actually burst. . . . Salt solution prevents this and is absorbed without any destruction of the epithelium." Our experimental studies do not bear out this theory, but we find we can continue tap water over a longer period with less rectal irritation than we can any saline solution.

In these replies one hospital is seen to have used water for a short time, but as yet we have not been able to ascertain the results. Another hospital mentions the "disinfectant and stimulating" action of salt. In twenty the solution is employed to "prevent hemolysis." One states that plain water is used in their nephritis cases without bad effect. The remaining seventy-six give in various terms some association between the solution and the chemical similarity or isotonicity with blood. From none was there any reason advanced why we should give salt water by the rectum any more logically than we should give it by the mouth to relieve thirst, or from fear of hemolysis or dread of having a solution not isotonic with blood.

The manner of preparation varies from careful attention to the most minute detail and containing potassium, calcium and sodium chlorid, sterilized and filtered, to the simple placing of two teaspoonfuls of table salt to a quart of tap water. In other words, the replies show that there is no uniformity in preparation and in some the solution if injected intravenously would probably allow hemolysis and certainly all of them cannot be isotonic with blood, when they vary to such a large extent.

It does not require any prolonged search of the literature to show the many ill effects of sodium chlorid; and even the surgeons of to-day know that therapeutists sometimes obtain wonderful results in the treatment of acute and chronic nephritis by substituting a salt-free diet.

Rössie[3] called attention to the changes in the heart, blood and kidneys in patients who had died following salt solution given subcutaneously and showed experimentally that they were due to the sodium chlorid and not to the amount of water or to hemolysis.

The experimental work of Christian[4] is in itself convincing of the dangers of the too free employment of salt; and along with Smith and Walker, Christian has actually produced not only an acute, but a chronic nephritis in rabbits by the continual administration of this drug.

Much interesting experimental work has been done with the administration of various drugs and any who are especially interested in this part of the subject are referred to the reports from the laboratory of the Department of the Theory and Practice of Physic, Medical School, Harvard University.

3. Rössie: Gibt es Schädigungen durch Kochsalzinfusion? Berl. klin. Wchnschr., Sept. 18, 1907.
4. Christian: Experimental Nephritis, Boston Med. and Surg. Jour., 1908, civlii, 416.

The neurologists have not been slow to recognize the harmful effects of salt, and Lepine[5] seems to believe that most cases of hysteria present a toxic element and often this can be found in relationship of the sodium chlorid retention and the kidneys. In one of his cases he studied the serum of his patient and found the sodium chlorid content almost twice the normal amount during the height of his patient's attack. Vincent was able to control to a large extent a number of cases of hysteria by employing a salt-free diet, without their knowledge, and, furthermore, accentuated the symptoms by a corresponding increase in salt. He further asserts that sodium chlorid in large doses will produce symptoms somewhat similar to lead and mercury poisoning, such as nausea, vomiting, diarrhea and abdominal pain.

Jackson and Elting[6] report a case of general edema of obscure origin without evidence of cardiac or renal lesions which was very definitely associated with sodium chlorid and in their case even the salt air of a sea voyage apparently increased the condition.

John B. Murphy[7] says:

> If the patient is getting too much solution, after the third or fourth day he will show a slight edema of the ankles, hands and even of the face. Then it should be discontinued until his circulatory equilibrium is restored, when the treatment may be repeated if indicated.

It is more than possible that some of these cases of edema are due to the amount of sodium chlorid and not necessarily to the amount of water. Especially is this point worthy of consideration when we realize that the patient receives during this time from 3,500 to 29,160 grains of salt, depending on the manner of preparation, when being forced on an average of 18 pints to the twenty-four hours as Murphy recommends.

In the replies to our questions, salt is said to be employed in varying proportions ranging from about 80 grains to "two heaping teaspoonfuls" to the quart. Testing the various table-salts we find a level teaspoonful will average 115 grains and a "heaping teaspoonful" will average 270 grains.

In other words, when we follow Dr. Murphy's directions about the quantity of fluid we force into the rectum anywhere from 1 to 10 ounces of sodium chlorid each day. Of course, if the solution is made so as to be about 0.6 per cent. the patient would only receive 1⅛ ounces of sodium chlorid daily, which is about the usual amount an average man in good health consumes by mouth in one month in the form of table salt.

In one case in our series, an interval appendix, there followed a transient albuminuria which remained for two days. Water was then substituted for the salt solution per rectum and at the end of twenty-four hours the albumin had disappeared. At the end of the next twenty-four hours salt solution was again used and albumin appeared within the next twenty-four hours. Salt solution was then discontinued and water started, and the patient did not show any more albumin up to the time of his discharge from hospital. In this case there was never any edema.

Henkel,[8] however, contends that the experimental work on lower animals does not correspond with his clinical experience concerning pregnant women who have

5. Lepine, J.: Hystérie, insuffisance rénale, rétention chlorurée, Rev. de Méd., Paris, September, 1911.
6. Jackson and Elting: Studies from the Bender Hygienic Laboratory, 1908, v.
7. Murphy, J. B.: THE JOURNAL A. M. A., April 17, 1909, p. 1249.
8. Henkel: Einfluss der Kochsalzinfusion, München. med. Wchnschr., Nov. 29, 1910.

nephritis. In such cases he found subcutaneous infusion of normal salt solution of much benefit. Of course, this has no direct connection with solution by rectum, but is mentioned on account of his experience being at variance with that of most other writers on this subject.

Horatio C. Wood[9] says that the use of saline infusion in cases of toxemia with the idea of increasing the rapidity of elimination is founded on an erroneous conception.

When a poison is introduced into the system it unites to form new compounds with the cell protoplasm and this molecular union must be broken up before the poison can be eliminated. Salt solution has no specific action in either bacterial or vegetable poisoning.

If absorption is a process of osmosis it is certainly reasonable to presume that a solution which is not isotonic with blood will be more readily absorbed from the rectum, and our series of cases tend to confirm this view.

I am especially indebted to Dr. T. H. Gilland for his assistance in the tabulation on which the following conclusions are based.

CONCLUSIONS

1. All patients show less rectal irritation to proctoclysis if given a soap-suds enema before the operation.

2. The patients given water by rectum absorbed nearly 400 c.c. more to the twenty-four hours than did the patients given salt solution, the average for the water series being 2,444 c.c. per twenty-four hours, and the average for the salt series being 2,041 c.c. per twenty-four hours.

3. The patients given salt solution by rectum required nearly twice as much water by mouth to relieve thirst, or, to give exact figures, in the water cases only 332 c.c. were taken in the first twenty-four hours, in the salt cases 696 c.c. were required in the first twenty-four hours.

4. The amount of urine was practically the same in both classes of cases, there being 2 c.c. more in the water cases for the first twenty-four hours after operation, and 3 c.c. more in the salt cases for the next twenty-four hours.

5. In seventeen cases the patients complained of tasting salt without having any idea that normal saline solution was being given by rectum. None of the water series made any such complaint.

6. In drainage cases more fluid may be taken by rectum than in those laparotomies closed without drainage.

7. Our observations on the comparative study of patients taking methylene-blue by rectum, phenolsulphonephthalein (Rowntree and Geraghty), etc., are as yet too limited to justify any deductions.

8. A comparative study of the sodium chlorid estimation in urine presents too many uncertainties to be of much value.

9. Proctoclysis should be employed more frequently than it has been in the past and in all classes of cases in which it is possible.

10. Care should be exercised to prevent "water-logging" of the entire system and this applies to both salt and water.

11. In peritonitis cases with drainage it is possible to have the patients take four or five times as much fluid by rectum as in the cases on which this paper is based.

1303 Franklin Road.

9. Wood: THE JOURNAL A. M. A., April 17, 1909, p. 1277.

CASE OF SEPTICEMIA WITH ORIGIN BEFORE ONSET OF LABOR

JAMES FARRAGE, M.D., DEERING, N. DAK.

History.—Mrs. H., 27 years of age, an American of Norwegian parents, became pregnant for the first time. I examined her urine at intervals, but never found anything abnormal. The date of delivery was fixed, approximately, for November 28. November 12 I was called and found her suffering from pains in the joints, with a temperature of 103 F. and a pulse of 120, having been this way for eight days. The lungs were quite clear. I ordered the patient to bed and gave her the usual remedies for influenza. Next day the temperature was still over 102, and the pulse about 120. The blood-pressure was normal. November 14 I was called hurriedly, with the information that labor had started about 7 a. m. Examination, made with gloves, under strict asepsis, showed the membranes ruptured and the head engaged in left occipito-anterior position. After an exceedingly easy labor of five hours she gave birth to an intensely cyanosed male child, at 12:50 p. m. The afterbirth was delivered intact. No enema was used, as the bowels had been previously moved. No feces were passed at delivery. It was with the greatest difficulty that I succeeded in making the child breathe, fifteen or twenty minutes of Schultz's method being successful. Twenty-four hours after delivery the child had four convulsions in two hours, with very intense cyanosis at each attack.

Course.—After delivery the mother's temperature and pulse dropped to normal, but at 4 p. m., three hours after delivery, the temperature was 99.2, and at 1 a. m., twelve hours after delivery, it was 100.2, with a pulse of 96. The patient was catheterized twice, being unable to void urine. She slept very little and was very nervous during the night. November 15, twenty-four hours after delivery, temperature was 103.4 and pulse 120. The patient complained of numbness in the arms and right leg, and at times was a little irrational. Blood-clots came away from the nose. The flow was considerable and without odor. November 16 she showed a temperature of 103.8 and a pulse of 122. A quantity of clotted blood was discharged from the vagina. November 18 I called in Dr. Sihler of Devil's Lake for consultation, and it was decided that we had a case of septicemia. From the start the respirations had been over 30 per minute and the tongue had been coated, but at no time during the course of the disease was the breath foul. The milk-flow was never established. The temperature and pulse remained about the same level; nothing we tried made any impression on either. November 22 a blood-clot with a foul odor, was passed from the vagina, and from that time the discharge gradually became less, until November 27, when it finally ceased. November 25 the abdomen was markedly tympanitic, which was relieved by a turpentine enema, a dark green stool being passed. November 26 the temperature reached 104.6 (vagina) and the pulse became very thready, reaching 150. After this exacerbation had passed, the temperature varied between 103 and 104.8 till December 2, when the pulse again became thready and reached 156, with a temperature of 105 (vagina). Again the patient was tided over this collapse until December 5, when her temperature went to 105.6, and her pulse was uncountable, the patient expiring at 10:50 a. m. She never had a chill at any time during the course of the disease. From November 25 until the time of her death, there was a great amount of tympanites, which was relieved by turpentine enemas. All the stools passed were dark green, with a very foul odor. November 27 Dr. Ramstad of Bismarck, the family physician, was called in consultation. He concurred in the diagnosis already made, but could suggest nothing further in the matter of treatment.

Bacteriologic Examination.—Swabs were sent to Dr. G. F. Ruediger of Grand Forks at different intervals. He discovered a mixed infection of a bacillus and a coccus. The bacillus proved to be the colon bacillus, but Dr. Ruediger was unable to grow a culture of the coccus, although over twenty plates were tried. After the third swab was received, he succeeded in isolating a few chains of *Streptococcus pyogenes*, which were not typical, and may have been only a close relative, as the

zone of hemolysis was very small, but there was no green coloration. As this organism was present in such small quantities, and was so difficult to isolate, he is doubtful whether this could be the cause of the infection. Had it been the cause, it would have been very easily detected. To quote from his letter of December 12: "I do not know how much of the trouble, if any, was due to these cocci and the colon bacillus." In Dr. Ruediger's letter of November 28, he says: "The coccus seen in smears did not look like a streptococcus, as we could find no chains, but most of them were present in pairs." Blood examination gave a negative Widal reaction.

Treatment.—Polyvalent antistreptococcic serum was used from the beginning, and later colon vaccine was also used. Cold packs and sponging at stated intervals, continuous proctoclysis of normal saline with patient in Fowler position, hypodermoclysis of normal saline solution and Credé ointment, also strychnin and digitalis when indicated, were all used. We tried quinin over a short period. At no time during the course of the disease did our therapy make any appreciable effect on either pulse or temperature, except during the last week, when cold packs would reduce the temperature about 1 degree and the pulse about 10 to 20 beats, but within an hour it would be back to where it was before. Uterine douches were used, but without effect at any time. Nourishment was pushed at all times during the course of the disease, the patient taking as high as 72 ounces of liquid food in twenty-four hours. Brandy was given every two hours.

Remarks.—I elicited the information from the husband that the patient had been using a patent preparation, called "Mother's Friend," which was applied to the perineum and genitals each day and well rubbed in. This is of the same nature as petrolatum, and had been used for some weeks previous to delivery. The husband denied ever having had any venereal disease.

The Child.—For the first three weeks the baby did very badly, and at the end of that time weighed barely 5 pounds and was distinctly marasmic. Under treatment, the condition cleared up, and at nine weeks it weighed between 9 and 10 pounds. In the fourth week it showed a gain of 12 ounces and in the fifth 8 ounces. At ten weeks the child died of bronchopneumonia, being sick only about fourteen hours.

I wish to thank Drs. Sihler and McIntosh of Devil's Lake, and Dr. Ramstad of Bismarck, for their help and advice in this case.

TECHNIC IN GRAFTING CORNEA OF A RABBIT'S EYE FOR DESTRUCTIVE ULCERATIVE CORNEA

R. M. BENSON, B.S., M.D., AND C. S. AUSTIN, A.M., M.D.,
CARROLLTON, MO.

Patient.—J. T., Marcaline, Mo., entered South Side Hospital Feb. 1, 1912. Examination revealed almost complete destruction of cornea of the right eye and patient was entirely unable to see from the eye at the time of entrance to the hospital. The eye was properly conditioned, pupil dilated and the cornea removed as follows:

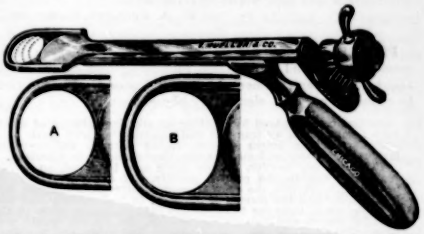
Technic.—Under local anesthesia the cornea was completely excised, except 1/16 inch near the limbus, and the cornea of the rabbit's eye was cut to fit the excised area. Superficial sutures were taken in the conjunctiva, both horizontal and perpendicular and drawn over the graft to hold it firmly in position. Small cannulas, bent to fit, were placed in the internal and external canthi and connected with vacuum-bottles by rubber tubing to draw off secretions which otherwise would flood the eye and prevent union. These were held in position by bands of adhesive plaster and the eye was bandaged for three days. Bandages were then removed to see that the tubes were kept clear for proper drainage. The patient was kept in the recumbent position. The cornea of the rabbit's eye was removed under anesthetic, after the patient had been prepared, and transferred to a normal saline solution at a temperature of 99 F. until ready for use. The corneal graft is perfect and clear and vision is 16/20.

TONSIL GUILLOTINE WITH A DULL BLADE

WILLIAM E. SAUER, M.D., ST. LOUIS

The accompanying illustration shows a modification of the Sluder guillotine. The cutting-blade, instead of being sharp, is dull, and, instead of being forced through by thumb-pressure alone, is gradually pushed forward by means of a screw attachment, making the blade act as an écraseur.

The technic of Sluder, or the one employed by Beck, both of which have been recently described,[1] can be followed with this instrument. The only change is, after the tonsil is engaged and the blade is pushed as far as possible by the thumb, the thumb-screw is then quickly turned against the thumb-piece,



Tonsil guillotine with a dull blade. The instrument is made in two sizes, A and B.

after which the nut is slowly turned to the right, gradually but completely enucleating the tonsil. The attachments are completely severed. The great advantage of the dull blade is the comparative freedom from hemorrhage.

201 Humboldt Building.

AN IMPROVED CARBOLFUCHSIN SOLUTION

F. H. VERHOEFF, M.D., BOSTON

The usual method of preparing carbolfuchsin for staining tubercle bacilli is to add a saturated alcoholic solution of fuchsin to a 5 per cent. aqueous solution of phenol (carbolic acid). Owing to a chemical reaction which takes place between water and phenol, a fine precipitate is gradually formed and the staining power of the solution becomes progressively impaired. For the best results, therefore, the solution should be freshly made, a fact that does not seem to be generally recognized. The following method of preparation has been found superior to the usual one, in that only a single stock solution is required which is permanent, uniform in its action, and, when once prepared, never afterward requires to be filtered. From this stock solution an active staining solution may be immediately prepared by the simple addition of distilled water.

The stock solution is as follows:

Phenol crystals, melted	25 c.c.
Absolute alcohol	50 c.c.
Fuchsin (basic)	2 gm.

Allow to remain over night in an incubator or on a steam radiator to ensure complete solution, cool and filter.

For use, add 2 drops of this stock solution to 8 drops of distilled water. For spreads of sputum, etc., the dilution may conveniently be made on the slide or cover-slip. When larger quantities of staining solution are required, the dilution is made in the proportion of 1 c.c. of the stock solution to 6 c.c. of distilled water.

The same method will be found advantageous in preparing other stains containing phenol, notably carbolthionin. The latter makes a beautiful and rapid contrast stain for sections stained for tubercle bacilli in carbolfuchsin.

101 Newbury Street.

1. THE JOURNAL A. M. A., March 25, 1911, p. 867, and Jan. 27, 1912, p. 240.

New and Nonofficial Remedies

THE FOLLOWING ADDITIONAL ARTICLES HAVE BEEN ACCEPTED BY THE COUNCIL ON PHARMACY AND CHEMISTRY OF THE AMERICAN MEDICAL ASSOCIATION. THEIR ACCEPTANCE HAS BEEN BASED LARGELY ON EVIDENCE SUPPLIED BY THE MANUFACTURER OR HIS AGENT AND IN PART ON INVESTIGATION MADE BY OR UNDER THE DIRECTION OF THE COUNCIL. CRITICISMS AND CORRECTIONS ARE ASKED FOR TO AID IN THE REVISION OF THE MATTER BEFORE PUBLICATION IN THE BOOK "NEW AND NONOFFICIAL REMEDIES."

THE COUNCIL DESIRES PHYSICIANS TO UNDERSTAND THAT THE ACCEPTANCE OF AN ARTICLE DOES NOT NECESSARILY MEAN A RECOMMENDATION, BUT THAT, SO FAR AS KNOWN, IT COMPLIES WITH THE RULES ADOPTED BY THE COUNCIL.

W. A. PUCKNER, SECRETARY.

PROFERRIN.—Iron Nucleo-proteid.—Proferrin is a compound of iron and milk casein containing iron equivalent to about 10 per cent. elementary iron and phosphorus equivalent to about 0.5 per cent. elementary phosphorus.

Proferrin is prepared by treating an alkaline solution of casein with a solution of an iron salt and precipitating with acetic acid.

Proferrin is a brown powder, almost odorless and tasteless, insoluble in water and dilute acids, slowly soluble in alkalies.

If, to the dry powder, fuming nitric acid be added, an orange red color, due to the proteid, results. If the dry powder be heated in a crucible, the odor of burning nitrogenous matter will be given off and the residue if dissolved in hydrochloric acid will give the usual tests for iron. If 0.5 Gm. be shaken with 10 Cc. distilled water, and the mixture filtered, the filtrate should give no precipitate on addition of ammonium hydroxide, and not more than a faint bluish tint on addition of a few drops of potassium ferro-cyanide solution (limit of *inorganic iron*).

If about 2 Gm. proferrin be digested for three hours at 40° C., with 40 Cc. of 0.2 per cent. hydrochloric acid containing 0.006 Gm. pepsin, U. S. P., and the resulting mixture filtered, 5 Cc. of the filtrate diluted to 100 Cc. should produce not more than a faint blue color on the addition of a drop of potassium ferro-cyanide solution.

The iron and phosphorus may be determined by the usual methods for organic compounds containing these elements.

Action and Uses.—Proferrin has been recommended as a ferruginous tonic and as a means of restoring the iron and phosphorus waste of the body. It undergoes very little change in the stomach but is said to be quickly digested and absorbed in the intestine. Its hematogenous actions resemble those of other organic iron preparations.

Dosage.—.13 to .3 Gm. (2 to 5 grains).

Manufactured by H. K. Mulford Co., Philadelphia, Pa. No U. S. patent. U. S. trademark No. 38,614.

Dosage forms:

Proferrin Tablets, 1 grain.—Each tablet contains proferrin 0.065 Gm. (1 grain).

Proferrin Tablets, 2 1/2 grains.—Each tablet contains proferrin 0.15 Gm. (2½ grains).

Proferrin Tablets, 5 grains.—Each tablet contains proferrin 0.3 Gm. (5 grains).

TYRAMINE.—Tyramine is para-hydroxy-phenyl-ethyl-amine hydrochloride $OH.C_6H_4.CH_2.CH_2.NH_2.HCl$, the hydrochloride of the base para-hydroxy-phenyl-ethyl-amine $OH.C_6H_4.CH_2.CH_2.NH_2$ obtained synthetically.

The base para-hydroxy-phenyl-ethyl-amine was first isolated by Barger from ergot and also prepared synthetically by him by the reduction of para-hydroxy-acetonitrile with sodium in alcoholic solution, (Transactions of the Chemical Society, Vol. 95, 1909). It is chemically and physiologically related to epinephrine $(C_6H_3(OH)_2.(CHOH.CH_2.NH.CH_3)$.

Tyramine occurs as an almost white crystalline powder, easily soluble in water forming a neutral solution.

Actions and Uses.—Taken internally or injected subcutaneously tyramine increases the blood pressure; for this reason it can be used in shock or collapse; it is also claimed to be valuable for producing post-partum contraction of the uterus. It is useless as a local hemostatic.

The action is similar to epinephrine, being weaker and slower, but lasting longer.

Dosage.—It is best used subcutaneously, in doses of 0.02 Gm. (1/3 grain) dissolved in water.

Manufactured by Burroughs Wellcome & Co., London, England, and New York. British patents Nos. 1560 and 1561 (Jan. 22, 1909). British trademark No. 309,250. No U. S. patent. U. S. trademark applied for.

Tabloid Tyramine Hypodermic.—Each tablet contains tryamine 0.02 Gm. (⅓ grain).

TUBERCULIN—Rosenbach.—A modified "old tuberculin."

The preparation of this tuberculin is in general similar to that of Koch's old tuberculin except that the tubercle bacilli are grown in a culture with Trichophyton holosericum album.

Actions and Uses.—The toxicity of the tuberculin is claimed to be materially reduced by the action of the trichophyton while the other properties are not altered. It is claimed that larger doses may be used and that it is more efficient than other forms of tuberculin. The validity of the claims for this preparation has not yet been fully confirmed by clinical observation.

It is used (by hypodermic injection) for diagnostic purposes and for the treatment of pulmonary and other forms of tuberculosis.

Dosage.—The dose and method of administration must be governed by conditions of the case.

Manufactured by Kalle & Co., A. G., Biebrich a. Rh. No U. S. patents or trademarks.

PHARMACEUTICAL PREPARATIONS

The following dosage forms of accepted proprietary articles have been accepted for N. N. R.:

Novocain Tablets "D."—Each tablet contains novocain 0.2 Gm. (3 grains).

Novocain Tablets "F."—Each tablet contains novocain 0.05 Gm. (¾ grain).

Novocain Suprarenin Tablets "A."—Each tablet contains novocain 0.125 Gm. (2 grains) and suprarenin 0.000125 Gm. (1/500 grain).

Novocain Suprarenin Tablets "B."—Each tablet contains novocain 0.1 Gm. (1½ grains) and suprarenin 0.00025 Gm. (2/500 grain).

Novocain Suprarenin Tablets "C."—Each tablet contains novocain 0.05 Gm. (¾ grain) and suprarenin 0.000083 Gm. (1/1000 grain).

Novocain Suprarenin Tablets "E."—Each tablet contains novocain 0.02 Gm. (⅓ grain) and suprarenin 0.00005 Gm. (1/1200 grain).

Therapeutics

THE SARSAPARILLA ABSURDITY

Spring seems to be the time of the year when the various sarsaparilla nostrums come to the front with special pleas of their being the one alterative (whatever that word may mean) to rehabilitate or reconstruct the human body, and incidentally to be so combined as to purge it of all left-over winter infelicities. The persistency of the recurrence of this epidemic foolishness is the cause of the following study of this drug.

The Pharmacopeia makes official the "dried root" of several kinds of "smilax," and then makes official:

Fluidextract of Sarsaparilla.

Compound Fluidextract of Sarsaparilla.

Sarsaparilla,
Glycyrrhiza,
Sassafras,
Mezereum,
Glycerin,
Diluted alcohol.

Compound Syrup of Sarsaparilla.

Fluidextract of sarsaparilla,
Fluidextract of glycyrrhiza,
Fluidextract of senna,
Sugar,
Oil of sassafras,
Oil of anise,
Oil of gaultheria,
Water.

Sarsaparilla contains small amounts of three glucosids (parillin, saponin and sarsosaponin), an oil, a resin and about 15 per cent. of starch.

Sarsaparilla has no local action, and internally is practically devoid of any physiologic action whatever. The only active principles that it possesses are the saponins, and they are in such small amount as to be practically negligible. If there is no physiologic activity to the drug, nothing that can be demonstrated, it cer-

V. 5
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tainly has no unusual value. The fact that the drug (if it deserves the name) is almost never used alone, that it is almost always combined with something more active such as potassium iodid, renders even a concealed activity and value doubtful.

Sarsaparilla seems to have been introduced into Europe, in the sixteenth century, as a treatment for syphilis. It was used for this disease for about a century, and then on account of its supposed worthlessness, was dropped and more or less forgotten. But late in the eighteenth century it was again brought to notice and urged as a drug of value in syphilis, and as a general alterative in obscure diseases. For a great many years its virtues have been lauded and its value urged by nostrum and patent-medicine firms.

Medical men have inherited from their fathers and grandfathers and great-grandfathers the belief that sarsaparilla has value in syphilis, gout, rheumatism, and as a general promoter, or disturber for good, of metabolism. But it is exceedingly rare that sarsaparilla is ordered alone; it is always in one of its multiple combinations, as described above, or in combination with a positive active drug, such as an iodid. That it, in one of its combinations, can make iodid taste less disagreeable is another inherited belief. Iodid given in milk or effervescing water can be rendered very slightly disagreeable. The sarsaparilla combinations are disagreeable of themselves.

To show how little value even nostrum-venders believe sarsaparilla itself to have, one has but to study the analysis of various nostrum sarsaparilla mixtures. In part second of the 1911 annual report of the Connecticut State Agricultural Experiment Station (discussed editorially in THE JOURNAL, March 30, p. 939), page 188, occurs the following:

Nine samples of proprietary compound extracts of sarsaparilla were analyzed. According to the labels they are of most complex composition. The following drugs, according to the labels on these bottles, are included in their preparation: sarsaparilla, yellow dock, stillingia, burdock, licorice, sassafras, mandrake, buckthorn, senna, black cohosh, pokeroot, wintergreen, cascara sagrada, cinchona bark, prickly ash, alcohol, glycerin and iodids of potassium and iron.

The only possible value of this combination of drugs is the cathartic action of the well-known senna and cascara sagrada, etc., the tonic action of the iron, the appetizing action of the cinchona, the very potent action of potassium iodid, and the possible desired effect of alcohol. It is seen that the sarsaparilla is so overpowered that if it had any action it could not be found.

The Massachusetts State Board of Health, quoted in this report, remarks that the majority of laymen, while mistakenly believing sarsaparilla to have therapeutic powers, know that it is harmless; therefore its combination with an active drug like potassium iodid, in a supposedly harmless preparation sold by druggists, grocers and department stores is censurable. Potassium iodid can generally do harm in large doses, and may do harm in small doses.

The Connecticut report goes on to state that the labels of five samples of these sarsaparilla preparations claimed to contain from 7 to 27 per cent. of alcohol. One contained 22.5 per cent. of alcohol, although none was stated on the label. Three samples contained a large amount of glycerin. Many contained sugar in the form of molasses.

The A. D. S. (American Druggist Syndicate) Sarsaparilla Compound is said on its label to be "a preparation of vegetable substances that eliminates poison from blood and tissues. This is not a patent medicine, but a Premium Remedy selected and warranted by an association of 12,000 qualified druggists." This "vegetable" preparation contained 7.5 grains of potassium iodid per fluidounce. It is therefore misbranded.

Ayer's Compound Concentrated Extract of Sarsaparilla contains 53.5 per cent. of glycerin and no alcohol. This preparation was found to contain 3.4 grains of potassium iodid per fluidounce.

Callahan's Our Sarsaparilla claims to be the "king of all purifiers." It contained 5.6 grains of potassium iodid to the fluidounce. It is a highly alcoholic preparation.

Hood's Compound Extract of Sarsaparilla, the label states, "contains 18 per cent. of alcohol, the smallest quantity that will extract and preserve all the remedial properties of the ingredients." This contained 4.4 grains of potassium iodid per fluidounce.

Jamieson's Compound Extract of Sarsaparilla contained but 1.4 grains of potassium iodid per fluidounce.

Nyal's Spring Sarsaparilla Compound states on its label that "the cultivation of cheerfulness of mind, purity of life, and habits of cleanliness greatly conduce to aid the medicine in the cure of disease." The Connecticut report remarks that "this delightful truism cannot be contradicted." Glycerin in this preparation has been substituted for alcohol, and it claims to contain 4.5 grains of iodids of potassium and iron per fluidounce. Potassium iodid was calculated to be present, 3.4 grains per fluidounce.

Sayle's Compound Extract of Sarsaparilla was found to have a high alcohol content and 3.4 grains of potassium iodid per fluidounce.

Rexall Sarsaparilla Tonic contained 22.5 per cent. of alcohol by volume, not declared on the label. It is therefore misbranded. It contained no iodids.

Wilson's Compound Sarsaparilla issues the warning on its label, "Patients should cautiously avoid the use of beer and alcoholic stimulants even in small quantities, which is distinctly calculated to produce the very diseases which they wish to cure." Such advice is stated by the Connecticut report to be "most refreshing when connected with a preparation containing 5.1 per cent. of alcohol, more than is usually found in beer itself." This preparation contained no iodids, but over half of its very high solids consists of cane-sugar in the form of molasses.

It is extremely improbable that there is any therapeutic value in sarsaparilla, or that there is any indication whatsoever in medicine for the use of sarsaparilla as a medicament. The Pharmacopeia should be purged of such absolute nonsense, if it is to continue to enjoy its own self-respect.

Definitions of Idiocy, Imbecility, Abnormality, Etc.—Drewry (*Virginia Med. Semi-Month.*) defines amentia in the words of J. T. Searcy as "a comprehensive term which has been used to designate an all-around want of normal mentality which has existed all the person's life, or since he has been old enough to have his mentality graded." In other words, "amentia is want of normal efficiency in all departments of thought." An idiot is "an ament who cannot be taught to be useful in any way to himself or to others, one who is utterly helpless and dependent"; an imbecile is "an ament who can be taught to do useful things under the immediate care and direction of others"; a feeble-minded person is "one who can be trained and educated to be quite useful and sometimes can work independently of outside help, if the work is not too complicated." De Moor defines abnormal children as "those afflicted with anything whatever that unfavorably affects their lives in relation to the social medium in which they live."

THE ATLANTIC CITY SESSION

AMERICAN MEDICAL ASSOCIATION, SIXTY-THIRD ANNUAL SESSION, ATLANTIC CITY, JUNE 4-7, 1912

OFFICIAL CALL

Sixty-Third Annual Session of the American Medical Association, Atlantic City, N. J., June 3-7, 1912

The sixty-third annual session of the American Medical Association will be held at Atlantic City, N. J.

The House of Delegates will convene at 10 a. m., Monday, June 3. In the House, the representation of the various constituent associations for the years 1910, 1911 and 1912 is as follows:

Alabama	3	Montana	1
Arizona	1	Nebraska	2
Arkansas	2	Nevada	1
California	3	New Hampshire	1
Canal Zone	1	New Jersey	3
Colorado	2	New Mexico	1
Connecticut	2	New York	11
Delaware	1	North Carolina	2
District of Columbia	1	North Dakota	1
Florida	1	Ohio	7
Georgia	2	Oklahoma	2
Hawaii	1	Oregon	1
Idaho	1	Pennsylvania	9
Illinois	9	Philippine Islands	1
Indiana	4	Rhode Island	1
Iowa	3	South Carolina	2
Kansas	2	South Dakota	1
Kentucky	4	Tennessee	3
Louisiana	2	Texas	5
Maine	1	Utah	1
Maryland	2	Vermont	1
Massachusetts	6	Virginia	3
Michigan	3	Washington	2
Minnesota	2	West Virginia	2
Mississippi	2	Wisconsin	3
Missouri	5	Wyoming	1

The fourteen scientific sections of the American Medical Association, the Medical Department of the Army, the Medical Corps of the Navy and the Public Health and Marine-Hospital Service are entitled to one delegate each.

The general meeting, which constitutes the opening exercises of the scientific functions of the Association, will be held at 10:30 a. m., Tuesday, June 4. The various sections will meet Tuesday, June 4, at 2 p. m., and subsequently, according to their programs, on Wednesday and Thursday, June 5 and 6, and in some cases also on Friday morning, June 7.

The registration Department will be open from 8:30 a. m. until 5 p. m., on Monday, Tuesday, Wednesday and Thursday, June 3, 4, 5 and 6, and from 9 to 10 a. m., on Friday, June 7.

JOHN B. MURPHY, President.

ALEXANDER R. CRAIG, Secretary.

THE MEMBERS OF THE HOUSE OF DELEGATES

A Preliminary Roster of the Legislative Body of the American Medical Association

To give in this issue a complete list of the members of the House of Delegates for the session is impossible, as a number of state societies are yet to hold their meetings at which delegates will be elected. The following is a list of the holdover delegates and of the newly elected members who have been reported to THE JOURNAL in time to be included:

STATE DELEGATES

ALABAMA
W. H. Sanders, Montgomery.
Beale Harris, Mobile.

ARKANSAS
G. A. Warren, Black Rock.

CALIFORNIA
O. D. Hamlin, Oakland.
Granville MacGowan, Los Angeles.

COLORADO
Hubert Work, Pueblo.
Edward Jackson, Denver.

GEORGIA
W. H. Daughty, Jr., Augusta.

ILLINOIS
E. J. Brown, Decatur.
Hugh T. Patrick, Chicago.

INDIANA
Miles F. Porter, Ft. Wayne.
F. A. Tucker, Noblesville.
J. Rilus Eastman, Indianapolis.
Edwin Walker, Evansville.

IOWA
Max White, Clarinda.

ISTHMIAN CANAL ZONE
Col. W. C. Gorgas, Ancon.

KANSAS
O. P. Davis, Topeka.

KENTUCKY
Curran Pope, Louisville.
A. T. McCormack, Bowling Green.
W. W. Richmond, Clinton.
J. W. Ellis, Masonville.

LOUISIANA
Oscar Dowling, Shreveport.

MARYLAND
G. Lane Taneyhill, Baltimore.

MASSACHUSETTS
F. H. Thompson, Fitchburg.
F. G. Wheatley, N. Abington.
Hugh Cabot, Boston.
Horace D. Arnold, Boston.
H. G. Stetson, Greenfield.
H. W. Van Allen, Springfield.

MICHIGAN
F. W. Robbins, Detroit.
R. R. Smith, Grand Rapids.
E. T. Abrams, Dollar Bay.

MINNESOTA
George D. Head, Minneapolis.
R. C. Dugan, Eyota.

MISSISSIPPI
J. W. Young, Grenada.

MISSOURI
E. J. Goodwin, St. Louis.
R. M. Funkhouser, St. Louis.

NEBRASKA
A. R. Mitchell, Lincoln.

NEVADA
J. E. Pickard, Reno.

NEW JERSEY
E. L. B. Godfrey, Camden.
C. R. R. Fisher, Bound Brook.
Luther M. Halsey, Williamstown.

NEW MEXICO
W. R. Tipton, E. Las Vegas.

NEW YORK
A. T. Bristow, Brooklyn.
Edward E. Cornwall, Brooklyn.
Henry L. Elsner, Syracuse.
James W. Fleming, Brooklyn.
Wesley T. Mulligan, Rochester.
Edgar A. Vander Veer, Albany.
Wendell C. Phillips, New York.
Dwight Murray, Syracuse.
James P. Warbasse, Brooklyn.
I. H. Neuman, Albany.
Julius Ullman, Buffalo.

NORTH CAROLINA
J. Howell Way, Waynesville.
J. F. Highsmith, Fayetteville.

NORTH DAKOTA
Victor H. Stickney, Dickinson.

OHIO
J. E. Tuckerman, Cleveland.
E. J. March, Canton.
J. H. J. Upham, Columbus.

OREGON
Kenneth A. J. MacKenzie, Portland.

PENNSYLVANIA
Thomas D. Davis, Pittsburgh.
Thomas S. Arbuthnot, Pittsburgh.
Fremont W. Frankhauser, Reading.
William T. Hamilton, Philadelphia.
George W. Guthrie, Wilkes-Barre.
Theodore B. Appel, Lancaster.
John B. Lowman, Johnstown.
M. Howard Fussell, Philadelphia.
Luther B. Kline, Catawissa.

RHODE ISLAND
John Champlin, Westerly.

SOUTH CAROLINA
John L. Dawson, Charleston.
E. A. Hines, Seneca.

SOUTH DAKOTA
T. B. Smiley, Mt. Vernon.

TENNESSEE
Jere L. Crook, Jackson.
A. B. Cooke, Nashville.
S. R. Miller, Knoxville.

TEXAS
A. C. Scott, Temple.
Vard H. Hulen, Houston.
Joe Becton, Greenville.

UTAH
Sol G. Kahn, Salt Lake City.

VERMONT
J. N. Jenne, Burlington.

VIRGINIA
C. N. Miller, Richmond.

WASHINGTON
G. W. Libbey, Spokane.
J. E. Else, Pullman.

WEST VIRGINIA
F. L. Hupp, Wheeling.
P. A. Haley, Charleston.

WISCONSIN
Byron M. Caples, Waukesha.

DELEGATES FROM THE SECTIONS

PRACTICE OF MEDICINE
J. A. Capps, Chicago.

SURGERY
H. A. Royster, Raleigh, N. C.

OBSTETRICS AND GYNECOLOGY
H. G. Wetherill, Denver.

OPHTHALMOLOGY
Hiram Woods, Baltimore.

LARYNGOLOGY, OTOLOGY AND RHINOLOGY
W. S. Bryant, New York City.

DISEASES OF CHILDREN
William Hollopeter, Philadelphia.

PHARMACOLOGY AND THERAPEUTICS
Reid Hunt, Washington, D. C.

PATHOLOGY AND PHYSIOLOGY
E. R. Le Count, Chicago.

STOMATOLOGY
G. V. I. Brown, Milwaukee.

NERVOUS AND MENTAL DISEASES
W. A. Jones, Minneapolis.

PREVENTIVE MEDICINE AND PUBLIC HEALTH
W. A. Evans, Chicago.

V. 58
1912

REGISTRATION

The Importance of Registering Early—A Few Instructions Given

The Registration Headquarters will be found in connection with the Scientific Exhibit, the Postoffice and Commercial Exhibit in the Exposition Building, Boardwalk and Kentucky Avenue.

One must register in order to obtain the official badge and program. The badge will be necessary for admission to entertainments. Members are urged to register as soon as they can name their hotels.

The Registration Department will be open from 8:30 a. m. to 5:30 p. m., on Monday, Tuesday, Wednesday and Thursday, June 3, 4, 5 and 6, and from 9 to 10 a. m. on Friday, June 7.

Attention is called to the following directions:

1. Each physician desiring to register will first fill out the registration card. One should write very plainly, or print, as the cards are given to the printer to use as "copy" for putting the names in the daily *Bulletin*.

2. *Each member who has paid his annual dues* in full will present his pocket card (which was sent him from the Chicago office) and his filled-out registration card at a window marked "Registration by Pocket Card."

3. *The registration of members* who have paid their dues, but *who have failed to bring their pocket cards* must be delayed, while the records are consulted. Be sure to bring your "pocket card."

4. *Members who have not paid* their dues will present registration card and make payment at a window marked "Cash."

5. *Each applicant for membership* will present his registration card at the window marked "New Members," with a certificate of membership in his state society. Prospective members, however, will save delay and annoyance by sending in their applications before the session. All such applications should be mailed to the American Medical Association, 535 Dearborn Avenue, Chicago, so as to arrive not later than May 20.

6. Each member on registration will receive a badge, a copy of the Official Program containing the full details of the scientific proceedings, invitations to the social functions, and such other announcements as may be of interest.

LOCAL COMMITTEE ON ARRANGEMENTS

Walt Ponder Conaway, Chairman, 1723 Pacific Avenue.
H. A. Doherty, Secretary. J. A. Joy, Treasurer.

COMMITTEE ON FINANCE

George Scott, Chairman, 1109 Pacific Avenue.
W. M. Pollard, A. D. Cuskaden, E. A. Reilly, Walter Reynolds.

COMMITTEE ON ENTERTAINMENT

J. C. MeVay, Chairman, 707 Pacific Avenue.
Emery Marvel, W. Blair Stewart, D. J. M. Miller, William Martin.

COMMITTEE ON SECTION ENTERTAINMENT

Bernard R. Lee, Chairman, 901 Pacific Avenue.
V. W. Metzler, W. P. Davis, Eugene L. Reed.

COMMITTEE ON HOTELS

W. E. Darnall, Chairman, 1704 Pacific Avenue.
Joseph C. Marshall, L. R. Souder, E. H. Madden.

COMMITTEE ON HALLS AND MEETING PLACES

David Berner, Chairman, 1509 Pacific Avenue.
Clyde M. Fish, William H. Schmidt, George P. Pennington.

COMMITTEE ON SECTION MEETINGS

Samuel Barbash, Chairman, 1902 Pacific Avenue.
H. C. Munroe, Joseph Poland, Theodore Boyeson.

COMMITTEE ON PROGRAM

Jay I. Durand, Chairman, 1616 Pacific Avenue.
E. H. Harvey, Mary E. Townsend, M. G. Frank.

COMMITTEE ON PRINTING

I. E. Leonard, Chairman, 2842 Atlantic Avenue.
E. S. Sharpe, H. S. Doriss, C. Garrabrant.

COMMITTEE ON BADGES

Thomas G. Dunlap, Chairman, 921 Pacific Avenue.
Clara K. Bartlett, M. H. Kudlich, J. C. Tull.

COMMITTEE ON SCIENTIFIC EXHIBIT

W. J. Carrington, Chairman, Ryanhurst Apartments.
Theodore Senseman, Samuel Stern, W. A. Hickman.

COMMITTEE ON REGISTRATION

H. T. Harvey, Chairman, Morris and Atlantic Avenues.
H. L. Harley, A. B. Shiner, H. C. James, R. Bew.

COMMITTEE ON INFORMATION

M. S. Ireland, Chairman, 23 S. California Avenue.
Byron Davis, Samuel E. Weiner, F. C. Burt.

COMMITTEE ON ALUMNI ENTERTAINMENT

W. C. Wescott, Chairman, Delaware and Pacific Avenues.
E. J. Porteous, Roy Woolbert.

COMMITTEE ON POSTOFFICE AND TELEPHONES

E. C. Chew, Chairman, 603 Pacific Avenue.
A. E. Ewens, T. D. Taggart.

COMMITTEE ON COMMERCIAL EXHIBIT

Edward Guion, 34 S. North Carolina Avenue.

COMMITTEE ON LADIES' ENTERTAINMENT

Mrs. W. Blair Stewart, Chairman.

ATLANTIC CITY

A Descriptive Article From the Committee on Arrangements on this Queen of Resorts

When a city maintains for thirty-five years the acknowledged position of being queen of the seaside resorts of the world, and when that admission is grudgingly bestowed to-day even by her most ambitious sister cities, the conclusion is inevitable that such supremacy must be established on rock-ribbed reasons and not on empty pretentions designed to attract patronage and create temporary prosperity.

UNIQUE CHARACTER OF ATLANTIC CITY

Atlantic City possesses the distinction of being the most original seaside resort on the face of the globe. Much of it she has created herself, but much more of it came as an endowment from Dame Nature. "I have no brother; I am like no brother," said Richard, Duke of Gloucester, and in truthful paraphrase Atlantic City can assert "I have no competitor; I am like no competitor."

When the Angel of Destiny bade the ocean waves bite remorselessly into the sands of what perhaps was once an unbroken mainland, there was left unbarried by the sea a ten-mile strip of land that eventually was christened Absecon Island, whose future was to be at once the playground and the health restoring center of the world. Its location is the most ideal of any spot along the seaboard. Extending as it does from East to West, its 5,575 acres receive sunshine so generously that a vigilant weather observer states that for thirty-three years the average has been 61 per cent. annually. From one extreme to the other of its ten miles of length, the waters of the Atlantic Ocean bathe its shores in never ceasing undulations, occasioning a condition of climate that constitutes one of the imperishable charms of Atlantic City. The extreme cold weather that descends on the rest of the north, through the ameliorating influences of the Gulf Stream and the bright sunshine, is relieved of its harshness and produces but an invigorating tone to the system that no medicine can approach. With the arrival of the hot days the island is caressed by a breeze that is seldom absent, but which frequently is not felt a score of miles inland.

It was inevitable from these factors alone that Atlantic City, once its attractions became known, should develop from the nucleus it formed in 1854. The paralysis of the Civil War left inactive a nation and for twenty years afterward Atlantic City slumbered until the forces of regeneration had impregnated the country. Then new life began to manifest itself

and the people began to appreciate the possibilities of Absecon Island. It may be said that practically from that time the giantess began to stir. She has not ceased since to push forward on a path that leads to tremendous achievements in the coming years. She is preeminently the City of Destiny.

To-day Atlantic City has exceeded the early prophecies of greatness. Other resorts have builded mediocre fame on their attractions in summer. Atlantic City can claim exclusive title to being the most popular gathering-ground in the world the year through. The invasion of the summer crowds is but one feature of the steadily increasing patronage that continues twelve months of every year.

HISTORY

Look into the history of Atlantic City and you will find that its most enthusiastic champions were physicians from the near-by city of Philadelphia and from territory as far as New York. Some of them came here themselves after a debilitating round of duties in professional circles.

Some of them sent their patients here as a possible source of relief from perplexing physical complaints. The cures were many and some relief was almost universal. The fame of the resort as a health center gradually was disseminated throughout the country, and step by step its unrivalled attractions reached the ears of Europeans, whose boast until that time had been that their spas and their watering-places for the elect were the *ne plus ultra* of resorts. They, too, sought to verify the reports and they returned amazed. The result has been that titled names of the cream of the old-world nobility may be found on the registry books of the big hotels that dot the Boardwalk. From Great Britain, from Canada, from every country in Europe, from the coast towns of Africa, and from New Zealand and Australia there is a yearly influx of travelers who consider a trip to the United States incomplete without a taste of the marvels of Atlantic City's glorious weather. Foreigners concede that nothing in Europe can approach the attractions of this city.

Climate alone could not bring about this steadily increasing rise in popularity. Atlantic City has proceeded with a wisdom beyond her years. Hand in hand with the growing inrush of visitors, the city has seen to it that her municipal growth has not been neglected. The resort has become a city marvelously developed on three sides, each of them contributing to make up a wonderful whole. Each summer there pours in at the height of the season frequently as many as 300,000 visitors a day. It is a period of constant arrival and departure. From all over the country, with its heaviest contributions from the middle West, from Pennsylvania, New York and adjacent states, trainload after trainload of human freight is deposited on Absecon Island. Yet Atlantic City is not a summer resort. Nor is it purely a winter resort, despite the great wave of arrivals that begin after the summer throng has vanished until another summer rolls around. Nearly 50,000 people reside there the year through, and a full-fledged city with a government as capable as any elsewhere carries on its activities with a hustle and bustle that occasions astonishment to the casual visitor. Atlantic City then is a year round seaside resort, a novelty among other watering-places on the globe.

Consider some of the attractions that await the visitor or that are constantly the pleasure of the resident. The desire of Atlantic City is to please. She offers no inducement that cannot be fulfilled. Her hotels are a marvel of beauty and comfort, and they are so plentiful that great as are the crowds arriving, they melt away behind the doors of a thousand caravansaries, some magnificent and imposing, and scores of others designed to meet the needs of every pocketbook.

THE BOARDWALK

There stretches nearly the entire length of the island a splendidly constructed Boardwalk, whose like cannot be found the world over. Attempt to walk it from end to end and you will realize the distance it covers. On the seaward side there is nothing to check the view of the Atlantic Ocean, except the piers in the center of the busiest section, between which are wide stretches of unbroken vista. So famous has this planked highway become that it is known even to the isles of the sea. On this walk there occurs every Easter day a parade of fashion and spring millinery never seen elsewhere, a perfect moving picture for hours, having for a background massive hotels, stores and shops of limitless description, transforming the seafront into a veritable city by itself. Paris or Hyde Park does not excel in brilliancy the Easter parade at Atlantic City.

At night the Boardwalk becomes a kaleidoscope of colors, myriads of electric lights swing in festoons above the heads of pedestrians while huge ornamental lamps of high power placed at intervals, help to make the highway as bright as day. To this is added the glitter of hundreds of private signs, of huge billboards with designs in motion, the whole effect being one surpassingly alluring to the eye. To stroll the Boardwalk at night, the breakers rolling in with unceasing rhythm, a constant succession of white caps driving on the sands, and with an invigorating sea air filling the lungs and sending a tingle through the veins, is one of the most sought-for delights of all who come to the seaside.

The roller chairs are a boon to hundreds. Comfortably cushioned, open or enclosed, agile pushers take their patrons for miles at reasonable rates. They are as popular as carriages are on the avenues, and a constant delight to visitors, while to invalids they are a positive agency toward accelerating health.

To enable visitors to get closer to the ocean, the big piers offer an excellent opportunity. Filled with pleasures of great variety, they grant relief from the heat of midsummer or in winter; warmed by steam and brilliantly illuminated, they enable patrons to forget that anything but amusement is worth while. Excellent orchestras carrying high grade performers give concerts the year through, and superior dance floors always well filled with couples are plentiful for those who would participate.

THE HOTELS

But it is to the hotel that one must look if the features that give distinctive tone to the Boardwalk are to be considered. Rising in a massive grandeur, the Marlborough-Blenheim presents a view to the Boardwalk promenader that is unequalled in Atlantic City. Within its walls assemble enough persons to constitute a small city in themselves. Towering into the air a picturesque work of architecture, at nights its gleaming windows give an impression of an ancient castle of fairy story. Close beside it is the Brighton, another structure less pretentious in size, but rivalling its neighbor in the excellence of its service and the character of its clientele. At intervals other big hotels loom up along the Boardwalk, the Chelsea, the Dennis, the Traymore, Chalfonte and Haddon Hall, each an example of the highest type of management, and each patronized by a following of select people to whose wants they all cater at rates reasonable and unvarying. There is no prettier spot in the resort than the vast plaza of which the Marlborough-Blenheim flanks one side, its green surface broken only by spraying fountains and by flowers and ornamental shrubbery.

The Traymore gives an appearance at first sight of solidity and strength. It rears its tower high above the roofs of adjacent buildings, and within it is the acme of comfort and refinement. Nor is it possible to overlook the Chalfonte with its red and white construction, a caravansary as ornamental as it is complete in all that goes to make hotel life agreeable. Haddon Hall, its companion, on the opposite side of the street, modest and unassuming in its appearance, is the favorite quarters of hundreds who have once tasted its hospitality. Further up the Walk, the Rudolf claims a large circle of patrons, while the Dennis, recently remodelled and enlarged, and the Chelsea, present inducements that keep patrons returning year after year.

With second-class hotels the city is well provided. There are hundreds of them, while a large list of boarding-houses with reasonable rates can be found on every hand. No city in the world is so well prepared to receive visitors as Atlantic City.

SURF-BATHING, FISHING AND YACHTING

For variety in winter recreation the opportunities are unrivalled. For lovers of surf-bathing there are miles of

V. 5
1912

beach smooth and hard as a rolled floor, on which during the summer hundreds of thousands of human beings gather every day. It is not uncommon to find over a hundred thousand bathers filling the beach in midsummer. For their protection an adequate force of life guards is employed throughout the season, equipped with modern apparatus designed to facilitate their work. The brawny, red-garbed men are alert, throughout the day, assisting the exhausted or battling against odds to save some reckless swimmer beyond the safety lines, while a beach physician and a corps of aids occupy a hospital tent, filled with the most modern appliances to meet any serious situation.

Stroll along the Boardwalk to the Inlet, if you are a fisherman. There a fleet of yachts is kept in readiness, some going out to sea at intervals to enable patrons to spend long hours with baited lines, returning with good loads of finny game, and some making long trips for the pleasure of the voyage. If the desire is for a quiet sail and to avoid the rough motion of waves, there is the thoroughfare which encircles the rear of the city extending from the Inlet to Longport, affording a fine opportunity to observe the life of the city from an intimate view by water. A dozen routes are open to steam launch and motor craft, weaving about the meadows, and there are the Chelsea or the Seaside or the Atlantic City Motor Boat Club to visit.

If the fancy turns to golf, one of the most attractive links in the East is established at the Country Club's pretty home at Northfield. With eighteen holes this field has had some of the most widely known men in the country, judges, jurists, prominent physicians, expert professionals and clever amateurs drive the balls over hillocks and gullies, sometimes making new records.

HIGHWAYS, SEWERAGE, WATER-SUPPLY, ETC.

For automobiles, Atlantic City provides advantages to be found nowhere else. Besides the highways on the island, a wide and imposing Boulevard extends seven miles to Pleasantville, thence enabling cars to travel over superior roads to Philadelphia and New York.

Atlantic City has excellent sewage disposal facilities, and there is at present under construction a million-dollar drain that will work wonders in cleansing the city.

Of her water-supply no disparagement can be made. Sparkling and pure, the water is brought to the city across the meadows, through a timber water-main that stretches to Absecon, where the supply is plentiful enough to ensure no possibility of a water famine for years to come. Some of the hotels still use the artesian system, the product from these deep driven wells meeting all the requirements both in quantity and quality.

Fig. 1.—Atlantic City beach scene with pier and Board Walk in the background. Hotel Chalfonte on the left, headquarters of Section on Surgery. Most of these illustrations are from photographs copyrighted by Harper B. Smith, Atlantic City, N. J.

Atlantic City's permanent population is growing by leaps and bounds. Ten years ago Chelsea marked the residential limit of the city. To-day Chelsea is practically but the beginning of the fashionable, select cottage and private home section of the island. Ventnor has sprung into being, grown into a city with its own government, and Margate City and Longport now are taking on new life. As a result the social side of Atlantic City and its suburbs is one of the delights of the resort. Clubs flourish, lyceums and forums are popular, musical organizations of great merit are liberally patronized, the

local Y. M. C. A. each Sunday introduces prominent lecturers and few features of metropolitan existence are lacking.

A finely equipped fire department guards the city with vigilance. Brilliant with electric lights are over sixty miles of avenues, broad, well paved, cared for in winter and summer by city servants. Imposing buildings are on every side. Five national banks, three trust companies, thirty-three churches, fourteen public schools and several private ones, numerous theaters, one a Nixon house in which are produced numerous big attractions before they are seen on Broadway, New York. A well-provided public library is accessible in the center of the city; there are two large and thoroughly up-to-date hospitals and sanatoriums abound. Three daily newspapers and one issued Sundays record the events of the county.

In railroad accommodations the city is well cared for. A score of the fastest trains on two big railroads, made up of fourteen cars, draw into this resort. In less than an hour Philadelphians can be at the seashore and New Yorkers can reach the island in three hours. Then there are two third-rail roads, while excellent trolley service taps important local centers.

HARVEY THOMAS.

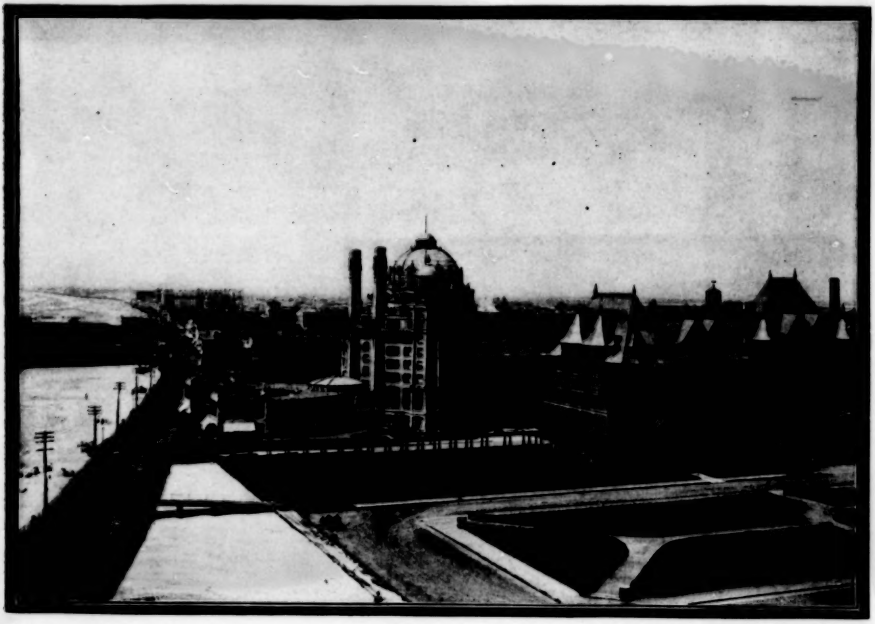


Fig. 2.—View of the beach and Boardwalk and Young's million-dollar pier, with the Hotel Marlborough-Blenheim on the right, the General Headquarters, and the meeting-place for the Section on Ophthalmology.

THE PROGRAMS OF THE SECTIONS

Outline of the Scientific Proceedings—The Preliminary Program and the Official Program

The following is a partial list of titles of papers to be read before the various sections. The order here is not necessarily the order which will be followed in the Official Program. This Official Program will be a pamphlet similar to those issued in previous years, and will contain the final program of each section, arranged by days, with abstracts of the papers, also lists of committees, programs of the General Meeting and of the meetings of the House of Delegates, lists of entertainments, map of Atlantic City, etc. To prevent misunderstandings and to protect the interests of advertisers, etc., it is here announced that this Official Program will contain no advertisements. It is copyrighted by the American Medical Association and will not be distributed before the session. A copy will be given to each member on registration.

SECTION ON PRACTICE OF MEDICINE

CHAIRMAN, WILDER TILESTON, NEW HAVEN, CONN.; SECRETARY, ROGER S. MORRIS, ST. LOUIS

Tuesday, June 4—2 p. m.

Arteriosclerosis. THOMAS D. COLEMAN, Augusta, Ga.

Primary Adenomata of the Liver Simulating Hanot's Hypertrophic Liver Cirrhosis. H. C. GORDINIER, Troy, N. Y.

Urobilin: Its Clinical Significance. RAY LYMAN WILBUR, San Francisco

Chloroma: A Clinical Study of Two Cases. WALTER L. BIERRING, Des Moines, Ia.

The Treatment of Leukemia and Pseudoleukemia with X-Rays. ALFRED STENGEL AND HENRY K. PANCOAST, Philadelphia.

Clinical Observations on an Epidemic of Sore Throat due to Streptococcus. J. A. CAPPS and J. L. MILLER, Chicago.

Tonsillar Infection in Relation to Arthritic, Cardiac and Renal Disease. DAVID J. DAVIS, Chicago.

The Relation of Aortitis to Syphilis, and the Importance of its Recognition. C. L. CUMMER AND RICHARD DEXTER, Cleveland.

Wednesday, June 5—9 a. m.

Personal Experience with Diabetes Mellitus Patients Living Ten or More years. ELLIOTT P. JOSLIN, Boston.

V. 5
1912

Family Hematoporphyrinuria and its Association with Chronic Gastroduodenal Dilatation and Thyreopathy.
L. F. BARKER, Baltimore, and W. L. ESTES, JR., South Bethlehem, Pa.

Pneumonia in the Massachusetts General Hospital from 1889 to 1912. F. C. SHATTUCK, Boston.

Immunization in Pneumonia and Other Pneumococcus Infections. E. C. ROSENOW, Chicago.

Pleural Vomicæ with a Report of Fourteen Cases.
ELSWORTH SMITH, St. Louis.

The Treatment of Pulmonary Tuberculosis by Compression of the Lungs. MARY E. LAPHAM, Highlands, N. C.

The Intensive Treatment of Syphilis.
HOMER F. SWIFT AND ARTHUR W. M. ELLIS, New York.

Thursday, June 6—9 a. m.

Hunger Pain. ALLEN A. JONES, Buffalo, N. Y.

Cardiospasm with Sacculation of the Esophagus, with Special Reference to Persistence of the Sac.
JESSE S. MYER and R. D. CARMAN, St. Louis.

The Value of Serial Radiography in the Diagnosis of Gastroduodenal Lesions. LEWIS GREGORY COLE, New York.

A New Method of Treatment of Ulcer of the Stomach.
J. W. WEINSTEIN, New York.

Comparative Studies in Cancer and Normal Tissue Ferments.
WALTER W. HAMBURGER, Chicago.

Diverticulitis of the Large Bowel: Clinical Review of Twenty-Seven Cases. H. Z. GIFFIN, Rochester, Minn.

Fig. 3.—The Easter Sunday parade, 1912, on the Boardwalk near the steel pier. "Everybody happy."

Wednesday, June 5—2 p. m.

Oration in Medicine: Prognosis in Heart Disease as Affected by Certain Medical Traditions.
CHARLES LYMAN GREENE, St. Paul, Minn.

Tertiary Syphilitic Fever. WILLIAM S. THAYER, Baltimore.

Diagnostic Pitfalls. RICHARD C. CABOT, Boston.

The Etiology of Pellagra. C. C. BASS, New Orleans.

Five Years' Experience with the High Calorie Diet in the Treatment of Typhoid Fever.
WARREN COLEMAN, New York.

An Analysis of Five Hundred Cases Showing High Blood-Pressure. THEODORE C. JANEWAY, New York.

A Plea for the More Frequent Scientific Employment of Physical Therapeutics.
PHILIP MARVEL, Atlantic City, N. J.

Constrictions of the Bowel: Their Demonstration and Clinical Significance. G. E. PFAHLER, Philadelphia.

Thursday, June 6—2 p. m.

SYMPOSIUM ON INTERNAL SECRETIONS

Joint Meeting with the Section on Surgery

The Internal Secretion of the Pituitary Body.
HARVEY CUSHING, Baltimore.

Relation of the Genital Organs to Internal Secretions.
EUGENE L. OPIE, St. Louis.

The Internal Secretion of the Pancreas.
JOSEPH H. PRATT, Boston.

The Anatomic and Physiologic Effect of Iodin on the Thyroid of Exophthalmic Goiter. DAVID MARINE, Cleveland.

Remarks on the Functional Activities of the Adrenals.
S. J. MELTZER, New York.

SECTION ON SURGERY

CHAIRMAN, THOMAS W. HUNTINGTON, SAN FRANCISCO; SECRETARY, FRED T. MURPHY, ST. LOUIS

Tuesday, June 4—2 p. m.

Chairman's Address: The Hospital Problem.
THOMAS W. HUNTINGTON, San Francisco.

The Results of Operations, Especially Abdominal, Performed on the Principle of Anoci-Association.
GEORGE W. CRILE, Cleveland.

Physiologic Basis of Thoracic Operations.
JOSEPH M. FLINT, New Haven, Conn.

Surgery of Chronic Infectious Diseases of the Lung.
SAMUEL ROBINSON, Boston.

The Obliteration of Empyemic Cavities.
E. M. VON EBERTS, Montreal.

Nature's Method of Rectifying the Surgeon's Carelessness as Illustrated by Three Cases.
INGERSOLL OLMSTEAD, Hamilton, Ont.

Wednesday, June 5—2 p. m.

Gastroptosis and Its Surgical Treatment.
T. RÖVSING, Copenhagen.

The Functions of the Large Intestine.
WALTER B. CANNON, Boston.

Dilatation of the Large Bowel. ARTHUR D. BEVAN, Chicago.

Adhesions of the Colon. M. L. HARRIS, Chicago.

The Symptoms of Chronic Intestinal Stasis.
J. FAIRBAIRN BINNIE, Kansas City, Mo.

Diverticula of the Gastro-Intestinal Tract and Their Surgical Importance. CHARLES H. MAYO, Rochester, Minn.

The Rôle of the Movable Kidney in Vascular and Intestinal Stasis. KENNETH A. J. MACKENZIE, Portland, Ore.

Thursday, June 6—9 a. m.

Further Experimental and Clinical Work Bearing on the Value of Lane's Bone Plate. WILLARD BARTLETT, St. Louis.

Operative Treatment in Joint-Fractures.
F. J. COTTON, Boston.

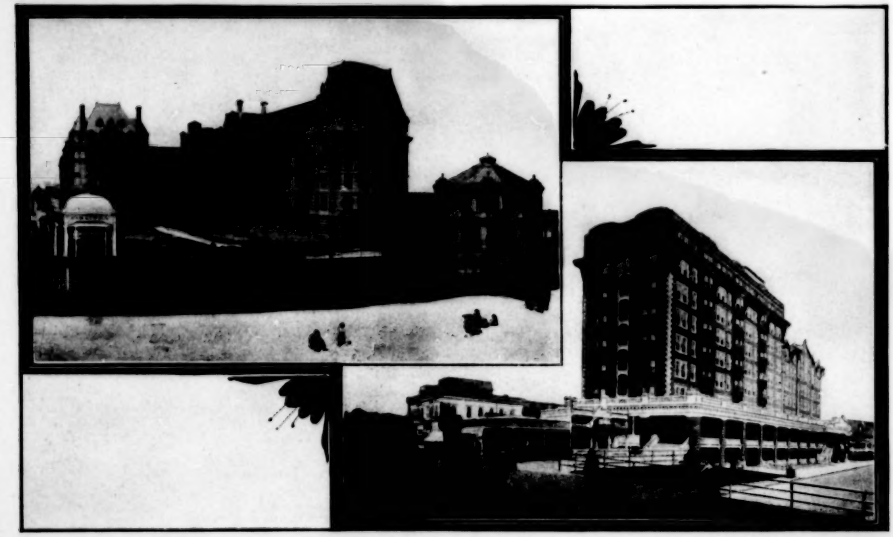


Fig. 4.—New Hotel Dennis, headquarters of the Section on Practice of Medicine and meeting-place of the Section on Laryngology, Otology and Rhinology.

Fig. 5.—Hotel Strand, headquarters of the Section on Ophthalmology.

Abnormal Involution of Mammary Gland.
W. L. RODMAN, Philadelphia.

Wednesday, June 5—9 a. m.

Oration on Surgery: An Aseptic Route to the Pituitary Body Through the Orbital Vault.
LEWIS L. MCARTHUR, Chicago.

Aphasia and Agraphia in Some of Their Practical Surgical Relations.
EDWARD MARTIN and CHARLES K. MILLS, Philadelphia.

Preservation of Tissues and Its Application in Surgery.
ALEXIS CARREL, New York.

Cardiospasm: A Report of One Hundred Cases.
H. S. PLUMMER, Rochester, Minn.

Experimental Intestinal Obstruction.
JOHN A. HARTWELL AND J. P. HOGUET, New York.

Tumors of the Small Intestine. W. D. HAGGARD, Nashville.

The Relation of the Duodenum to Surgery of the Stomach and Colon. JOSEPH C. BLOODGOOD, Baltimore.

Operative Treatment of Fractures and Dislocations.
WILLIAM DARRACH, New York.

The Surgery of Bones and Joints. LEONARD W. ELY, Denver.

The Treatment of Fractures Near to or Into Joints.
HARRY M. SHERMAN, San Francisco.

An Operation for Pott's Disease of the Spine
RUSSELL A. HIBBS, New York.

Thursday, June 6—2 p. m.

SYMPOSIUM ON INTERNAL SECRETIONS

Joint Meeting With the Section on Medicine

The Influence of the Secretion of the Pituitary Gland.
HARVEY CUSHING, Baltimore.

Relation of the Genital Organs to Internal Secretions.
EUGENE L. OPIE, St. Louis.

The Internal Secretion of the Pancreas.
JOSEPH H. PRATT, Boston.

The Anatomic and Physiologic Effect of Iodin on the Thyroid of Exophthalmic Goiter. DAVID MARINE, Cleveland

V. 5
1912

The Functional Activities of the Adrenals.
S. J. MELTZER, New York.

Friday, June 7—9 a. m.

A Further Contribution to the Statistics of Endo-Aneurysm or the Intrasaccular Method of Suture in the Radical Cure of Aneurysm, with Commentaries on the Present Status of this Operation.
RUDOLPH MATAS, New Orleans.

Further Experience with Aneurysmorrhaphy (Matas).
JOHN H. GIBBON, Philadelphia.

The End Results in Fifteen Cases of Chronic Pancreatitis Treated by Permanent Drainage.
LEGRAND GUERRY, Columbia, S. C.

The Reconstruction of the Bile-Ducts.
ARTHUR G. SULLIVAN, Madison, Wis.

The Ligation of the Ovarian or Deep Pelvic Veins in the Treatment of Puerperal Thrombophlebitis.
R. R. HUGGINS, Pittsburgh.

Postoperative Femoral Thrombophlebitis: Cause and Prevention.
DANIEL H. CRAIG, Boston.

Hysterotomy.
JOHN B. DEAVER, Philadelphia.

Intra-Abdominal Pressure and the Dynamics of the Female Pelvis.
J. RIDDLE GOFFE, New York.

A Simple Operation for Repair of the Female Perineum Based on the Anatomy of the Parts.
WALTER B. DORSETT, St. Louis.

Uterovaginal Prolapse in Elderly Women—Technic of the Operation.
GEORGE B. SOMERS, San Francisco.

Wednesday, June 5—9 a. m.

The Resistance of the Patient as a Guide to Operative Procedures.
WALTER B. CHASE, Brooklyn.

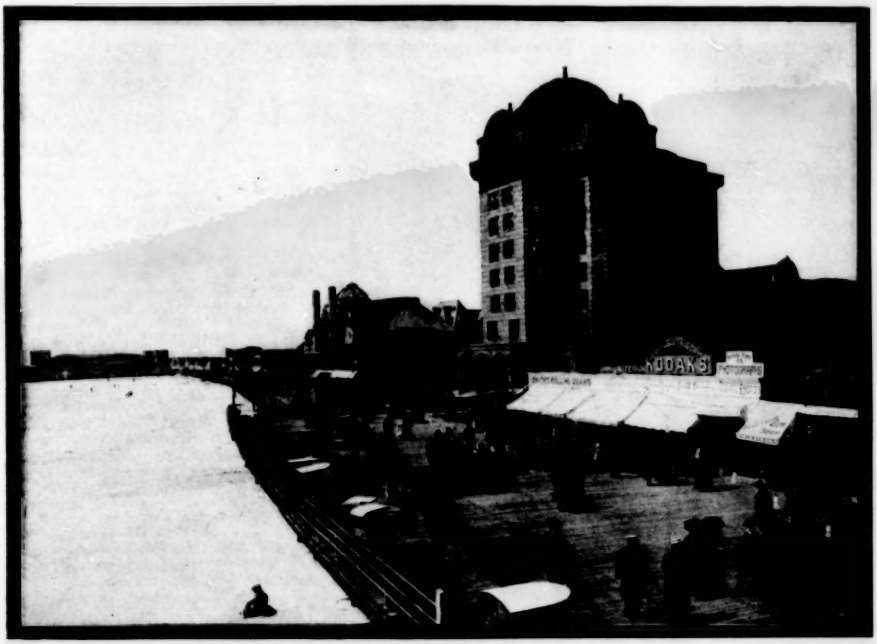


Fig. 6.—The Boardwalk and Hotel Traymore, meeting-place of the House of Delegates and headquarters of the Section on Diseases of Children.

An Aseptic Method of Intestinal Anastomosis.
WILLIS D. GATCH, Indianapolis.

Thrombophlebitis of the Left Leg.
H. D. KISTLER, Butte, Mont.

A New Method of Suturing Blood-Vessels.
J. SHELTON HORSLEY, Richmond, Va.

SECTION ON OBSTETRICS AND GYNECOLOGY

CHAIRMAN, C. JEFF MILLER, NEW ORLEANS; SECRETARY, F. F. SIMPSON, PITTSBURGH

Tuesday, June 4—2 p. m.

Chairman's Address: The Present Status of the Surgical Treatment of Puerperal Pyemia by Ligation or Excision of Trombosed Veins.
C. JEFF MILLER, New Orleans.

Incomplete Abdominal Surgery.
HORACE G. WETHERILL, Denver.

A Plea for More Careful Technic in Doing Intrapelvic Reconstructive Work.
W. FRANCIS B. WAKEFIELD, San Francisco.

Corpus Luteum Extract; With Suggestions as to Its Use in Gynecologic Practice.
CURTIS F. BURNAM, Baltimore.

The Relation of Pelvic Conditions to Intestinal Displacement in Women.
C. A. L. REED, Cincinnati.

The Coincidence of Cholelithiasis with Gynecologic Diseases.
JOHN G. CLARK, Philadelphia.

Wednesday, June 5—2 p. m.

The Advantages Afforded by Vaginal Celiotomy in the More Perfect Application of Antisepsis.
PROF. DMITRIG OSKAROVIC OTT, St. Petersburg, Russia.

Intestinal Complications in Gynecologic Operations.
LEWIS S. MCMURTRY, Louisville.

Puerperal Infection.
THOMAS J. WATKINS and A. H. CURTIS, Chicago.

Inflammation of the Fallopian Tubes.
HERMAN J. BOLDT, New York.

Gynecologic Pelvic Drainage.
J. WESLEY BOVÉE, Washington, D. C.

Conservative Operative Treatment of Salpingitis.
I. S. STONE, Washington.

A Further Study of the End Results of the Conserved Ovary.
JOHN O. POLAK, Brooklyn.

Thursday, June 6—9 a. m.

Pulmonary Tuberculosis Complicating Pregnancy.
C. S. BACON, Chicago.

Cardiac Complications of Pregnancy and Labor.
FRANKLIN S. NEWELL, Boston.

Proteid Metabolism in Pregnancy and the Puerperium.
J. R. MURLIN AND HAROLD C. BAILEY, New York.

Nephritis in Pregnancy. JOSEPH B. DELEE, Chicago.

Drainage of the Kidney, by Incision, for Bacillus Coli Communis Infection in Pregnant and Parturient Patients, with Report of Cases. EDWARD P. DAVIS, Philadelphia.

Appendicitis Complicating Pregnancy, Labor and Puerperium.
PALMER FINDLEY, Omaha.

Fig. 7.—The Chelsea Yacht Club.

Thursday, June 6—2 p. m.

The Radical Treatment of Abortion with Results in 3,400 Cases from the Wards of the New York Lying-In Hospital.
ROSS MCPHERSON, New York.

Personal Experience with Cases of Ruptured Uterus.
BARTON C. HIRST, Philadelphia.

Difficult and Dangerous Labors: Selecting the Method of Delivery. HAROLD A. MILLER, Pittsburgh.

Cesarean Section. CHARLES A. STILLWAGEN, Pittsburgh.

Chronic Inversion of the Uterus.
SAMUEL M. D. CLARK, New Orleans.

Averages in Attitude and Trunk Development in Women and Their Relation to Pain.
ROBERT L. DICKINSON and WALTER TRUSLOW, Brooklyn.

Friday, June 7—9 a. m.

Acetonuria: Its Relation to Postoperative Vomiting in 700 Cases of Ether Anesthesia.
SIDNEY A. CHALFANT, Pittsburgh.

Sarcoma of the Vagina. P. BROOKE BLAND, Philadelphia.

Gynecologic Disease in the Insane.
FRED J. TAUSSIG, St. Louis.

Some Types of Ureteral Obstruction in Women.
HENRY D. FURNISS, New York.

Treatment of Tubal Gestation. L. J. LADINSKI, New York.

SECTION ON OPHTHALMOLOGY

CHAIRMAN, ADOLF ALT, ST. LOUIS; SECRETARY, EDGAR S. THOMSON, NEW YORK

Chairman's Address. ADOLF ALT, St. Louis.

A Clinical Communication on Certain Visual-Field Defects in Hypophysis Disease with Special Reference to Scotomas.
G. E. DE SCHWEINITZ and T. B. HOLLOWAY, Philadelphia.

Disease of the Optic Nerve in Myxedema; Its Relationship to the Thyroid Gland and to the Hypophysis.
GEORGE S. DERBY, Boston.

The Krönlein Operation as an Exploratory Procedure in Affections of the Orbit. ARNOLD KNAPP, New York.

The Surgical Treatment of Exophthalmos
MARTIN B. TINKER, Ithaca, N. Y.

Pemphigus of the Conjunctiva; with the Report of a Case.
WALTER BAER WEIDLER, New York

Subconjunctival Injections in Ophthalmic Therapy.
E. L. JONES, Cumberland, Md.

Sympathetic Optic Neuritis; with report of a Case.
EDGAR S. THOMSON, New York.

Phlyctenular Ophthalmia and its Etiology.
H. D. BRUNS, New Orleans.

Removal of the Lens in High Myopia.
WALTER EYRE LAMBERT, New York.

Orbital Cellulitis from Disease of the Superior Maxilla in Children.
WILLIAM CAMPBELL POSEY, Philadelphia.

Sclerosis of the Ligamentum Pectinatum and its Relation to Glaucoma (with Lantern Demonstration). F. H. VERHOEFF, Boston.

Nasal Hydrorrhea; Its Relations to Lesions of the Brain, and Visual Apparatus.
CASEY A. WOOD, Chicago.

Some Early Diagnostic Retinal Signs of Arteriosclerosis, and Chronic Bright's Disease.
ALBERT E. BULSON, JR., Ft. Wayne, Ind.

Visual Disturbances from Distant Hemorrhage
WILLIAM ZENTMAYER, Philadelphia.

Address; Provision for the Proper Teaching of Ophthalmology in Medical Schools.
EDWARD JACKSON, Denver.

Cataract Extraction with Corneal Suture.
EDWARD C. ELLETT, Memphis.

Preparatory Capsulotomy in Extraction of Immature Senile Cataract.
PERCY FRIDENBERG, New York.

Suggestions Regarding Some Points in the Technic of Cataract Extraction.
SAMUEL THEOBALD, Baltimore.

Visual Results After the Smith Intracapsular Cataract Operation. D. W. GREENE and J. W. MILLETTE, Dayton, O.

Eye Complications Caused by Hookworm Disease.
F. P. CALHOUN, Atlanta, Ga.

Measurement of Fatigue of the Ocular Muscles.
LUCIEN HOWE, Buffalo, N. Y.

The Findings of the Tropometer in 100 Normal Eyes, and Its Value in the Study of Strabismus.
WENDELL REBER, Philadelphia.

Normal Values of the Accommodation at All Ages: A Statistical Study. A. DUANE, New York.

Dangers to and Requirements of the Eyes of the National Marksman. JOHN A. DONOVAN, Butte, Mont.

Case of Uniocular Polyopia Existing in Both Eyes.
JOHN C. BOSSIDY, Boston.

Morgagnian Cataract. BURTON CHANCE, Philadelphia.

SECTION ON DISEASES OF CHILDREN

CHAIRMAN, ISAAC A. ABT, CHICAGO; SECRETARY, J. P. SEDGWICK, MINNEAPOLIS

Tuesday, June 4—2 p. m.

Chairman's Address. ISAAC A. ABT, Chicago.

The Ability of Women to Nurse Their Children.
J. P. CROZER GRIFFITH, Philadelphia.

V. 5
1912

Supplemental Breast-Feeding in Infants.
H. M. McCLANAHAN, Omaha, Neb.

Long-Interval Feeding of Premature Infants.
J. C. LITZENBERG, Minneapolis.

A Plea for Longer Intervals in Milk-Feeding.
JULIUS H. COMROE, York, Pa.

Intestinal Toxemia in the New-Born.
JOHN LOVETT MORSE, Boston.

Wednesday, June 5—9 a. m.

Clinical Notes from the Willard Parker Hospital, New York: Intestinal Intoxication. LOUIS FISCHER, New York.

The Properties, Uses and Indications of the Various Carbohydrates in Infant Feeding.
HENRY DWIGHT CHAPIN, New York.

Use of Polycarbohydrates in the Diet of the Young Infant.
JULES M. BRADY, St. Louis.

A Series of Infants Fed on a High-Percentage Albumin Milk.
FRANK C. NEFF, Kansas City, Mo.

Pneumonic Empyema in Children; With Especial Reference to the Diagnosis and Management of Those of Small Extent. EDWARD F. WELLS, Chicago.

Wednesday, June 5—2 p. m.

Allergy to Common Foods. 1. Idiosyncrasy to Hens' Eggs.
OSCAR M. SCHLOSS, Chicago.

A Note on the Influence of Food on the Intestinal Flora in Infants. ALFRED FRIEDLANDER, Cincinnati.

The Use of Raw and Boiled Milk in Infant Feeding.
JOSEPH BRENNEMANN, Chicago.

The Caloric Requirements of Bottle-Fed Infants.
ROGER H. DENNETT, New York.

The Relation of the Infant Welfare Movement to Pediatrics.
THOMAS B. COOLEY, Detroit.

The Value of the Social Service Department to the Children's Dispensary. MAURICE OSTHEIMER, Philadelphia.

Thursday, June 6—9 a. m.

Pellagra in Children. J. ROSS SNYDER, Birmingham, Ala.

Exophthalmos in Scorbutus. L. R. DEBUYS, New Orleans.

Influence of Climate on Summer Diarrhea of Infants.
L. T. ROYSTER, Norfolk, Va.

Functional Cardiac Murmurs.
SAMUEL MCCLINTOCK HAMILL, Philadelphia.

1. An Automatic Device for Reading Systolic and Diastolic Blood-Pressures in Children. 2. Effect of Cold Air on the Blood-Pressure of Tuberculous Children.
B. RAYMOND HOOBLER, New York.

Thursday, June 6—2 p. m.

The Relationship Between the Tuberculous Infection in the Child and Clinical Tuberculosis in the Adult.
F. M. POTTENGER, Monrovia, Cal.

Tabes Mesenterica in Infants and Young Children.
FRITZ B. TALBOT, Boston.

The Diagnosis of Enlarged Bronchial Glands.
HENRY F. STOLL, Hartford, Conn.

Methods of Estimating Kidney Function.
RICHARD M. SMITH, Boston.

The Hypodermic Injection of Hematinics in the Treatment of Anemia in Children, with Report of Cases.
H. LOWENBURG, Philadelphia.

Friday, June 7—9 a. m.

The Menace to the Young Child of the Common Infectious Cold. THOMAS S. SOUTHWORTH, New York.

Effect on Later Development of Severe and Prolonged Illness in Infancy. THOMAS D. PARKE, Birmingham, Ala.

Anesthesia by Pharyngeal Insufflation.
FRANK W. PINNEO, Newark, N. J.

Juvenile Psychasthenia.
TOM A. WILLIAMS, Washington, D. C.

Ileocolitis with Meningeal Symptoms.
A. L. GOODMAN, New York.

SECTION ON PHARMACOLOGY AND THERAPEUTICS

CHAIRMAN, TORALD SOLLMANN, CLEVELAND; SECRETARY, M. I. WILBERT, WASHINGTON, D. C.

Tuesday, June 4—2 p. m.

Chairman's Address. TORALD SOLLMANN, Cleveland.

Address of the Delegation from the American Pharmaceutical Association.

SYMPOSIUM ON PATENTS AND TRADE-MARKS

Report of the Committee of the American Medical Association on the Present Status of the Laws.
M. I. WILBERT, Washington, D. C.

The Relation of the Patent and Trade-Marks Laws to Materia Medica Nomenclature. F. E. STEWART, Philadelphia.

The Effect of Pathologic Conditions in Modifying Drug Action.
GEORGE BARCLAY WALLACE, New York.

How Can the Science of Therapeutics be Furthered?
J. L. MILLER, Chicago.

Candy Medication. BERNARD FANTUS, Chicago.

Fig. 8.—Absecon Lighthouse.

The Uses of High-Frequency Desiccation, Fulguration and Thermoradiotherapy in Therapeutics.
WILLIAM L. CLARK, Philadelphia.

Wednesday, June 5—9:30 a. m.

SYMPOSIUM ON ROENTGEN THERAPY

Theory of the Therapeutic Action of the Roentgen Ray.
GEORGE COFFIN JOHNSTON, Pittsburgh.

Practical Application of the Roentgen Ray to the Management of Malignant Growths.
CLARENCE E. SKINNER, New Haven, Conn.

Roentgen Treatment of Non-Malignant Diseases.
RUSSELL H. BOGGS, Pittsburgh.

SYMPOSIUM ON THE DESIRABILITY OF A MORE RESTRICTED MATERIA MEDICA FROM THE STANDPOINT OF:

The Chemist (The Unreliability of Unimportant Medicaments). W. A. PUCKNER, Chicago.

The Pharmacist HENRY P. HYNSON, Baltimore.

Medical Instruction. E. LE FEVRE, New York.

The Medical Practitioner (The Drugs We Need).
OLIVER T. OSBORNE, New Haven, Conn.

Report of the Committee on Useful Remedies.
REID HUNT, Washington, D. C.

Wednesday, June 5—2 p. m.

SYMPOSIUM ON ANTISEPTICS AND GERMICIDES

Joint Meeting with Section on Preventive Medicine and Public Health

Intestinal Antiseptics. NORMAN MACL. HARRIS, Chicago.
The Phenol Coefficient of Certain Disinfectants.
JOHN F. ANDERSON, Washington, D. C.
The Influence of Sodium Iodoxybenzoate on Reactions of Inflammatory Character.
SAMUEL AMBERG and J. H. MASON KNOX, JR., Baltimore.
The Relative Advantages of Organic and Inorganic Iodin Preparations. J. A. CAPPS, Chicago.
The Duodenal Medication of Ipecac in the Treatment of Amebic Dysentery. HARVEY G. BECK, Baltimore.

Thursday, June 6—9:30 a. m.

The Persistence of Action of the Digitalis Bodies.
ROBERT A. HATCHER, New York.
Clinical Observations on the Duration of Digitalis Action.
CARY EGGLESTON, New York.
Clinical Investigations of Cardiovascular Drugs.
DAVID L. EDSALL, St. Louis.

SYMPOSIUM ON DRUG STANDARDS

Report of Progress of the U. S. P. Revision.
JOSEPH P. REMINGTON, Philadelphia.
The Quality of Drugs on the Market.
L. F. KEBLER, Washington, D. C.
Drug Plant Cultivation. R. H. TRUE, Washington, D. C.
The Ideals and Limitations of Bio-Assay.
HORATIO C. WOOD, JR., Philadelphia.
The Retail Pharmacist as a Purveyor of Pure Drugs.
HENRY KRAEMER, Philadelphia.
Prescribing Versus Dispensing. JULIUS H. COMROE, York, Pa.
An Investigation of Certain Galenical Preparations of the Pharmacopeia of the United States with Special Reference to Their Stability.
M. CLAYTON THRUSH, Philadelphia.

Thursday, June 6—2 p. m.

SYMPOSIUM ON ANESTHESIA

Joint Session with the Section on Pathology and Physiology

Chemistry of Anesthetics CHARLES BASKERVILLE, New York.
American Statistics. JAMES T. GWATHMEY, New York.
Postoperative Mortality from Anesthetics; the Recorded Death-Rate from Ethyl Chlorid.
A. H. MILLER, Providence, R. I.
Practical Helps in Surgical Anesthesia.
JOSEPH E. LUMBARD, New York.
Anesthesia in Brain Surgery. S. GRIFFITH DAVIS, Baltimore.
Principles Involved in the Scientific Administration of Nitrous Oxid with Oxygen and the Limitations of Nitrous Oxid with Oxygen as a General Anesthetic.
CHARLES K. TETER, Cleveland.
Spinal Anesthesia. FREEMAN ALLEN, Boston.
Spinal Anesthesia. W. S. BAINBRIDGE, New York.

SECTION ON PATHOLOGY AND PHYSIOLOGY

CHAIRMAN, LEO LOEB, ST. LOUIS; SECRETARY, A. W. HEWLETT, ANN ARBOR, MICH.

Tuesday, June 4—2 p. m.

Chairman's Address. LEO LOEB, St. Louis.

SYMPOSIUM ON RECENT ADVANCES IN OUR KNOWLEDGE OF ACUTE INFECTIONS

Pneumococcus Infection and Immunity.
RUFUS COLE, New York.
Recent Advances in Our Knowledge of Scarlet Fever.
KARL K. KOESSLER, Chicago.
Blood-Pressure Observations in Epidemic Meningitis; Use of Blood-Pressure in Controlling the Administration of Serum. A. SOPHIAN, New York.
Recent Advances in Our Knowledge of Measles.
JOSEPH GOLDBERGER and JOHN F. ANDERSON, Washington, D. C.
Some Recent Advances in Our Knowledge of Typhus Fever.
JOSEPH GOLDBERGER and JOHN F. ANDERSON, Washington, D. C.

Wednesday, June 5—9 a. m.

The Wassermann Test in the Tropics (Canal Zone—Panama).
LEWIS B. BATES, Canal Zone.
Demonstration of a Sarcoma Transmitted by a Filterable Agent. PEYTON ROUS, New York.
Blood-Changes Caused by the Hypodermic Administration of the Cancer Proteid. J. W. VAUGHAN, Detroit.
Immunity and Specific Therapy in Experimental Cancer.
ISAAC LEVIN, New York.
Acute Poliomyelitis, Transverse Myelitis Type.
A. L. SKOOG, Kansas City, Mo.
The Pathology and Classification of Chronic Joint Disease.
LEONARD W. ELY, Denver.

Wednesday, June 5—2 p. m.

SYMPOSIUM ON MERCURY AND SALVARSAN IN THE TREATMENT OF SYPHILIS

Joint Meeting With the Section on Dermatology and Scientific Exhibit

Differentiation of Spirochæta Pallida and Other Allied Species of Spirochetes in Culture.
HIDEYO NOGUCHI, New York.
A Study of Antibody Formation in Syphilis.
HOMER F. SWIFT and ARTHUR W. M. ELLIS, New York.
The Administration of Salvarsan in Syphilis.
J. A. FORDYCE, New York.
The Proper Place of Mercury and of Salvarsan in the Treatment of Syphilis ABNER POST, Boston.
The Relative Value of Mercury and Salvarsan from a Serologic Point of View. HOWARD FOX, New York.

Thursday, June 6—9 a. m.

Experimental Studies in Blood Transfusion.
ROSWELL T. PETTIT, Chicago.
The Physiopathologic Aspects of the Use of Blood as a Therapeutic Agent. A. L. SORESI, New York.
An Experimental Study of the Changes of the Blood Following Splenectomy. J. H. MUSSER, JR., Philadelphia.
The Roethlisberger Uricometer for the Study of the Uric Acid of the Blood-Serum. J. HAROLD AUSTIN, Philadelphia.
The Influence of Splenectomy on the Production of Hemolytic Jaundice.
R. M. PEARCE, J. H. AUSTIN and E. B. KRUMBHAAR, Philadelphia.
Experiments Comparing Death from Acute Mechanical Intestinal Obstruction with that Due to Gangrene of the Intestines. J. SHELTON HORSLEY, Richmond, Va.

Thursday, June 6—2 p. m.

SYMPOSIUM ON ANESTHESIA

Joint Meeting with the Section on Pharmacology and Therapeutics

Chemistry of Anesthetics. CHARLES BASKERVILLE, New York.
American Statistics JAMES T. GWATHMEY, New York.
Postoperative Mortality from Anesthetics; the Recorded Death-Rate from Ethyl Chlorid
A. H. MILLER, Providence, R. I.
Practical Helps in Surgical Anesthesia.
JOSEPH E. LUMBARD, New York.
Anesthesia in Brain Surgery.
S. GRIFFITH DAVIS, Baltimore.
Principles Involved in the Scientific Administration of Nitrous Oxid with Oxygen and the Limitations of Nitrous Oxid with Oxygen as a General Anesthetic.
CHARLES K. TETER, Cleveland.
Spinal Anesthesia. FREEMAN ALLEN, Boston.
Spinal Anesthesia. W. S. BAINBRIDGE, New York.

Thursday, June 7—9 a. m.

The Use of the Crehore Micrograph in Clinical and Experimental Studies of Cardiovascular Conditions.
J. H. AUSTIN, Philadelphia.

V. 5
1912

The Topography of the Heart-Valves as Revealed by the *X*-Ray.
GEORGE FETTEROLF and GEORGE WILLIAM NORRIS, Philadelphia.

Studies in Infarction: Experimental Bland Infarction of the Lungs. HOWARD T. KARSNER, Boston.

Influence of Certain Antiseptics on Bacteria in Wounds.
HOWARD S. PRINCE, Ithaca, N. Y.

The Theory and Practice of Pasteurization.
M. J. ROSENAU, Boston.

Experiments with Louisiana Rice as Bearing on the Etiology of Beriberi. CREIGHTON WELLMAN, New Orleans.

A Kinetic Hypothesis Relating to the Origin of the Emotions and of Certain Diseases.
GEORGE W. CRILE, Cleveland.

SECTION ON STOMATOLOGY

CHAIRMAN, S. L. MCCURDY, PITTSBURGH; SECRETARY, EUGENE S. TALBOT, CHICAGO

Tuesday, June 4—2 p. m.

Chairman's Address: Oral Surgery and Its Relationship to General Medicine. STEWART L. MCCURDY, Pittsburgh.

The Origin and Progress of the National Oral Hygiene Movement. RICHARD GRADY, Annapolis, Md.

Wanted: A Sense of Asepsis.
JOHN S. MARSHALL, Berkeley, Cal.

Unclean Mouths. M. H. FLETCHER, Cincinnati.

Wednesday, June 5—2 p. m.

Some Hygienic Errors of Dentists.
L. G. NOEL, Nashville, Tenn.

The Care of the Mouth of the Sick.
WILLIAM C. FISHER, New York.

Extra-Oral Bilateral Resection of the Mandible Posterior to the Second Molar for the Correction of Prognathism.
WILLIAM T. HARSHA and JOSEPH EISENSTAEDT, Chicago.

Acute Osteomyelitis of the Lower Jaw.
W. WAYNE BABCOCK, Philadelphia.

Thursday, June 6—9:30 a. m.

Blind Abscesses. M. L. RHEIN, New York.

Infections of the Upper and Lower Jaw.
FREDERIC V. HUSSEY, Providence, R. I.

The Hospital's Need of a Dental Staff.
ANDREW J. FLANAGAN, Springfield, Mass.

The Cubical Contents and Superficial Area of the Maxillary Sinuses. VIRGIL LOEB, St. Louis.

Thursday, June 6—2 p. m.

The Pathologic Findings of Some Diseases of the Teeth and Gums. VIDA A. LATHAM, Chicago.

Saliva in Its Relation to the Hardening and Softening of Tooth Enamel. JOSEPH HEAD, Philadelphia.

The Reciprocal Influences of Morbid Conditions of the Mouth, Jaws and General Economy.
M. I. SCHAMBERG, New York.

The Speech Relation of Cleft Palate Operations.
GEORGE V. I. BROWN, Milwaukee.

Iodoglycerol in the Treatment of Mouth Infections.
EUGENE S. TALBOT, Chicago.

SECTION ON DERMATOLOGY

CHAIRMAN, CHARLES J. WHITE, BOSTON; SECRETARY, H. R. VARNEY, DETROIT

Tuesday, June 4—2 p. m.

Chairman's Address: The Shortcomings of Dermatology.
CHARLES J. WHITE, Boston.

Cancerous Degeneration in Chronic Leg Ulcer.
WILLIAM S. GOTTHEIL, New York.

Benign Epithelioma. M. L. HEIDINGSFELD, Cincinnati.

Parakeratosis Scutularis. LUDWIG WEISS, New York.

Keratosis Follicularis Contagiosa (Brooke).
DAVID LIEBERTHAL, Chicago.

Wednesday, June 5—9:30 a. m.

Kératodermie Blennorrhagique With Report of a Case.
FRANK EDWARD SIMPSON, Chicago.

Observations on Keratosis Follicularis.
W. B. TRIMBLE, New York.

Pityriasis Rubra (Hebra). Report of a Case.
H. J. F. WALLHAUSER, Newark, N. J.

A Clinical Study of Certain Pityriasic Eruptions.
GEORGE HENRY FOX, New York.

Acne. MARCUS HAASE, Memphis.

Wednesday, June 5—2 p. m.

SYMPOSIUM ON MERCURY AND SALVARSAN IN THE TREATMENT OF SYPHILIS

Joint Meeting with the Section on Pathology and Physiology

Differentiation of Spirochæta Pallida and Other Allied Species of Spirochetes in Culture.
HIDEYO NOGUCHI, New York.

A Study of Antibody Formation in Syphilis.
HOMER F. SWIFT and ARTHUR W. M. ELLIS, New York.

The Administration of Salvarsan in Syphilis.
J. A. FORDYCE, New York.

The Proper Place of Mercury and of Salvarsan in the Treatment of Syphilis. ABNER POST, Boston.

The Relative Value of Mercury and Salvarsan from a Serologic Point of View. HOWARD FOX, New York.

Thursday, June 6—9:30 a. m.

Injurious Effects of the *X*-Ray Applied for Therapeutic Purposes on the Skin. A. RAVOGLI, Cincinnati.

Diet and Hygiene in Diseases of the Skin.
L. DUNCAN BULKLEY, New York.

The Clinical Histories of Certain Cases of Infantile Eczema Which Suggest Disturbance of the Digestion as an Important Causative Factor.
HARVEY P. TOWLE and FRITZ B. TALBOT, Boston.

Psoriasis Treated with High Grade Colonic Irrigations and Lactic Acid. JAMES M. WINFIELD, Brooklyn.

Psoriasis Familialis. FRANK C. KNOWLES, Philadelphia.

Thursday, June 6—2 p. m.

Myomatosis Cutis Disseminata with the Report of Three Probable Cases of the Condition.
RICHARD L. SUTTON, Kansas City, Mo.

Lupus Erythematosus with Superimposed Carcinoma.
J. B. KESSLER, Iowa City, Iowa.

Some Uncommon and Often Unrecognized Forms of Toxic Dermatitis. JOSEPH ZEISLER, Chicago.

A Plea for an Earlier Diagnosis of Pellagra.
M. L. RAVITCH, Louisville.

Hypertrichosis. HENRY CLAY BAUM, SYRACUSE, N. Y.

The Most Practical Methods of Teaching Syphilis and Dermatology. WILLIAM THOMAS CORLETT, Cleveland.

SECTION ON PREVENTIVE MEDICINE AND PUBLIC HEALTH

CHAIRMAN, RUPERT BLUE, WASHINGTON, D. C.; SECRETARY, C. HAMPSON JONES, BALTIMORE

Tuesday, June 4—2 p. m.

Chairman's Address and Oration.
RUPERT BLUE, Washington, D. C.

Standardizing Health Board Statistics.
LE GRAND POWERS, Washington, D. C.

Classification and Grouping of Health and Sanitary Expenditures. M. N. BAKER, New York.

The Desirability of Uniform Methods of Procedure in Quarantine Practice, Especially as Relates to the Minor Infectious Diseases. J. W. KERR, Washington, D. C.

Reporting of Suspicious Cases by the Laity, a Prerequisite for the Efficient Control of Communicable Disease.
M. SOLIS-COHEN, Philadelphia.

Laws Relative to the Sanitary Control of Public Eating and Drinking Places.
WALTON FORREST DUTTON, Carnegie, Pa.

The Control of Contagious Diseases in a Municipality.
GUY L. KIEFER, Detroit

Problems of Venereal Diseases.
ROBERT N. WILLSON, Philadelphia.

Wednesday, June 5—9 a. m.

SYMPOSIUM ON INDUSTRIAL DISEASES

Joint Meeting with the American Association for Labor Legislation.

Classification of Occupational Diseases.
W. GILMAN THOMPSON, New York.

Occupational Skin Diseases. JOHN A. FORDYCE, New York.

Occupational Neuroses. CHARLES L. DANA, New York.

Nomenclature of Occupations. WARREN COLEMAN, New York.

The Need of Cooperation in Promoting Industrial Hygiene.
HENRY R. SEAGER, New York.

Wednesday, June 5—2 p. m.

SYMPOSIUM ON ANTISEPTICS AND GERMICIDES

Joint Session with Section on Pharmacology and Therapeutics

Intestinal Antiseptics. NORMAN MACL. HARRIS, Chicago.

The Phenol Coefficient of Certain Disinfectants.
JOHN F. ANDERSON, Washington, D. C.

The Influence of Sodium Iodoxybenzoate on Reactions of Inflammatory Character.
SAMUEL AMBERG and J. H. MASON KNOX, Baltimore.

Effect of Iodids on the Circulation and Blood-Vessels.
J. A. CAPPS, Chicago.

The Duodenal Medication of Ipecac in the Treatment of Amebic Dysentery. HARVEY G. BECK, Baltimore.

Is Infection Carried by Books?
OTIS B. NESBIT, Valparaiso, Ind.

Thursday, June 6—9 a. m.

Methods of Water Purification for Large Cities.
RUDOLPH HERING, New York.

Purification of Water-Supplies for Small Towns.
A. J. WEHR, Baltimore.

A Preliminary Report on the Treatment of Baltimore Drinking Water with Calcium Hypochlorite.
WILLIAM ROYAL STOKES and F. W. HACHTEL, Baltimore.

Protection of Water-Supply and Methods of Disposal of Excreta Aboard Ship. on Fresh Water.
J. O. COBB, Chicago.

Relation of Interstate Waters to the Spread of Typhoid Fever. ALLAN J. MCLAUGHLIN, Washington, D. C.

Local Typhoid Outbreaks. J. S. NEFF, Philadelphia.

The Application of Medicosociology in Civic Betterment.
OTTO P. GEIER, Cincinnati.

A Cost-Finding System for Health Departments.
W. F. SNOW, Sacramento, Cal.

Thursday, June 6—2 p. m.

Control of Measles. E. C. LEVY, Richmond, Va.

The Necessity for Rodent Extermination in American Seaports.
W. C. RUCKER, Washington, D.C.

A Short Discussion of Some of the Recent Hygienic and Economic Improvements in Dairying.
RICHARD COLE NEWTON, Montclair, N. J.

Results of Epidemiologic Studies of Infection by Typhoid-Colon-Dysentery Groups. C. J. HUNT, Harrisburg, Pa.

Antityphoid Inoculation: Three Years Experience With Its Use in Training Schools For Nurses in Massachusetts.
LESLIE H. SPOONER, Boston.

Typhoid Vaccination in the Army.
F. F. RUSSELL, Washington, D. C.

A Further Report on the Preventive Inoculation Against Typhoid Fever in Public Institutions and in Civil Communities.
FRANK W. HACHTEL AND HARRY W. STONER, Baltimore.

SECTION ON HOSPITALS

CHAIRMAN, W. B. RUSS, SAN ANTONIO, TEXAS; SECRETARY, JOHN ALLAN HORNSBY, CHICAGO

Tuesday, June 4—2 p. m.

Chairman's Address. W. B. RUSS, San Antonio, Texas.

SYMPOSIUM ON THE RELATION OF THE HOSPITAL TO THE PATIENT

The Problem of Diet in the Modern Hospital.
HARVEY W. WILEY, Washington, D. C.

A Clinical View of the Special Diet. H. D. ARNOLD, Boston.

Does the Trained Nurse of To-day Meet the Requirements of the Patient, the Medical Profession and the Public?
ARTHUR R. EDWARDS, Chicago.

The Hospital Versus the Home in the Care of Patients—An Evolution. P. E. TRUESDALE, Fall River, Mass.

Wednesday, June 5—9 a. m.

SYMPOSIUM ON THE RELATIONS OF THE HOSPITAL TO THE PHYSICIAN

Hospital Pathology—Asepsis and Cleanliness from the Clinician's Point of View. JOHN B. MURPHY, Chicago.

The Proper Division of the Medical Services of the Hospital.
HENRY M. HURD, Baltimore.

Problems of Hospital Organization.
F. A. WASHBURN and LOUIS H. BURLINGHAM, Boston.

The Medical Superintendent: His Advantages, His Duties and His Limitations. H. B. HOWARD, Boston.

The Relations of the Hospital to the Medical School.
ARTHUR DEAN BEVAN, Chicago.

Individual Prophylaxis in Children's Hospitals.
ISAAC A. ABT, Chicago.

Thursday, June 6—9 a. m.

Report of Special Committee on the Present Status of the Hospitals of this County in Regard to Scientific Equipment.

SYMPOSIUM ON THE RELATIONS OF THE HOSPITAL TO THE PUBLIC

Out-Patient Medical Service: The Most Important and Most Neglected Part of Hospital Work.
RICHARD C. CABOT, Boston.

The Efficiency of Out-Patient Work.
MICHAEL M. DAVIS, JR., Boston.

The Relations of the Hospital to Corporations Interested in Patients. SAMUEL C. PLUMMER, Chicago.

The Legal Aspects of the Relations of the Hospital to Corporations Interested in Patients. M. L. BELL, Chicago.

The Relations of the Civil Hospital to the Military Establishment in Time of Peace; in Time of War.
CHARLES RICHARD, Washington, D. C.

Hospitals and the Health Problem, with Special Reference to the Necessities of Rural America.
E. E. MUNGER, Spencer, Iowa.

SECTION ON LARYNGOLOGY, OTOLOGY AND RHINOLOGY

Chairman—GEORGE E. SHAMBAUGH, Chicago; Secretary, BURT R. SHURLY, Detroit.

Tuesday, June 4—2 p. m.

Chairman's Address: The Specialist in Medicine.
G. E. SHAMBAUGH, Chicago.

Exploratory Needle Puncture of the Maxillary Antrum in One Hundred Individuals Demonstrating the Marked Dissimilarity Between the Clinical and Post-Mortem Findings. ROSS H. SKILLERN, Philadelphia.

Ethmoiditis a Common Sequel of Hay Fever.
F. C. TODD, Minneapolis.

The Roentgen Ray in Oto-Laryngology.
P. M. HICKEY, Detroit.

Wednesday, June 5—9 a. m.

SYMPOSIUM ON INTRACRANIAL COMPLICATIONS

Operative Technic for the Relief of Brain Abscess of Otitic Origin. JAMES MCKERNAN, New York.

Diagnosis and Localization of Brain Abscess.
F. X. DERCUM, Philadelphia.

Diseases of the Ear Which Lead to Brain Abscess.
MAX GOLDSTEIN, St. Louis.

Wednesday, June 5—2 p. m.

Use of Salvarsan in Lesions of the Nose, Throat and Ear.
C. R. C. BORDEN, Boston.

Bronchoscopic Dilatation of Bronchial Stenoses.
CHEVALIER JACKSON, Pittsburgh.

V. 5
1912

Relation of Nasal Conditions to Asthma.
JUSTUS MATTHEWS, Rochester, Minn.

Further Experience with Endobronchial Therapy of Asthma.
WOLFF FREUDENTHAL, New York.

Treatment of Chronic Laryngeal Stenosis by Prolonged Intubation.
HOMER DUPUY, New Orleans.

Thursday, June 6—9 a. m.

Refinements Which Render Tonsillectomy Safe, Surgical and Satisfactory.
M. M. CULLUM, Nashville, Tenn.

SYMPOSIUM ON CORRECTION OF DEFORMITIES OF THE NASAL SEPTUM

The Submucous Resection of Deflections of the Nasal Septum—The Author's Present Perfected Method.
OTTO T. FREER, Chicago.

Methods of Correcting Deflections of the Nasal Septum.
CHARLES W. RICHARDSON, Washington, D. C.

Indications and Contra-Indications to Resection of the Nasal Septum.
H. W. LOEB, St. Louis.

Thursday, June 6—2 p. m.

A Study of Cellular Change During and After Acute Mastoiditis.
E. R LEWIS, Dubuque, Ia.

Report of Cases of Purulent Labyrinthitis and Meningitis, with Operations and Remarks on Same.
WENDEL C. PHILIPS AND S. J. KOPETZKY, New York.

SYMPOSIUM ON THE SURGERY OF THE LABYRINTH

Diffuse Suppuration of the Labyrinth and the Indication for Operative Interference.
R. B. CANFIELD, Ann Arbor, Mich.

Technic of Radical Labyrinth Surgery.
JOHN D. RICHARDS, New York.

A Plea for Conservative Labyrinth Surgery.
NORVAL H. PIERCE, Chicago.

SECTION ON GENITO-URINARY DISEASES

CHAIRMAN, W. T. BELFIELD, CHICAGO; SECRETARY, HUGH H. YOUNG, BALTIMORE

Tuesday, June 4—2 p. m.

SYMPOSIUM ON TESTS ON THE FUNCTIONAL VALUE OF KIDNEYS

The Results of Two Hundred Chromo-Ureteroscopies Employing Indigocarmin as a Functional Kidney Test.
B. A. THOMAS, Philadelphia.

Practical Value of Blood Cryoscopy for Determination of Renal Function.
MARTIN KROTOSZYNER AND GEORGE W. HARTMAN, San Francisco.

A Study of the Value of the Various Tests for Kidney Insufficiency.
H. M. JOHNSON, St. Louis.

A Study of the Accuracy of the Phenolsulphonephthalein Test for Renal Function.
JOHN T. GERAGHTY, Baltimore.

SYMPOSIUM ON RENAL SURGERY AND PATHOLOGY

Address by THORKILD RÖVSING, Copenhagen, Denmark.

Bilateral Multiple Renal Calculi.
EDWARD MARTIN, Philadelphia.

The Diagnosis and Indications for Operation in Early Hydronephrosis. Definition of Hydronephrosis.
HUGH CABOT, Boston.

Pathologic Lesions (Non-Congenital) Associated with Double Ureter. Report of an Unusual Case.
A. RAYMOND STEVENS, New York.

Wednesday, June 5—9 a. m.

Influence of the Operation of Resection of the Kidneys on the Function of the Organ.
JOHN H. CUNNINGHAM, JR., Boston.

Unilateral Renal Hematuria.
B. ALEXANDER RANDALL, Philadelphia.

Nephritis and Hematuria: Report of Cases.
H. A. FOWLER, Washington, D. C.

The Use of Tuberculin in the Treatment of Tuberculosis of the Urinary Tract.
GEORGE S. WHITESIDE, Portland, Ore.

SYMPOSIUM ON TREATMENT OF TUMORS OF THE BLADDER

The Treatment of Papillary Tumors of the Urinary Bladder with the High-Frequency Current (Oudin).
EDWIN BEER, New York.

Interesting Cases of Bladder Tumor Treated by the High-Frequency Current.
E. L. KEYES, JR., New York.

Cancer of the Bladder.
R. F. O'NEIL, Boston.

The Surgical Treatment of Tumors of the Bladder.
E. S. JUDD, Rochester, Minn.

The Suprapubic Excision of Vesical Tumors.
FRANCIS R. HAGNER, Washington, D. C.

Wednesday, June 5—2 p. m.

SYMPOSIUM ON TREATMENT OF VESICAL CALCULUS

Litholapaxy: The Operation of Choice for the Removal of Stone in the Bladder.
ARTHUR TRACY CABOT, Boston.

Litholapaxy.
MAURICE H. RICHARDSON, Boston.

Suprapubic Cystotomy for Vesical Calculi. Indications and Operative Procedure.
W. E. LOWER, Cleveland.

Contracture of the Neck of the Bladder.
CHARLES H. CHETWOOD, New York.

A New Procedure (Punch Operation) for Small Prostatic Bars, and Contracture of the Prostatic Orifice.
HUGH HAMPTON YOUNG, Baltimore.

The Human Prostate Gland at Birth, with a Brief Discussion of Its Fetal Development. Demonstration of Enlarged Wax Reconstruction.
OSWALD S. LOWSLEY, Los Angeles.

The Non-Operative Treatment of Prostatitis.
WILLIAM BENHAM SNOW, New York.

Impermeable Stricture of Bulbomembranous Urethra (Impermeable to Passage of Instrument).
JOHN B. DEAVER, Philadelphia.

Thursday, June 6—9 a. m.

Chairman's Address: Hematogenous Disease of the Genital Organs in the Male.
WILLIAM T. BELFIELD, Chicago.

Seminal Vesiculotomy. Its Purpose and Accomplishments.
EUGENE FULLER, New York.

Treatment of Chronic Seminal Vesiculitis by Vasostomy (Belfield Operation).
ROBERT H. HERBST, Chicago.

Surgical Routes of Entrance to the Male Pelvis.
L. E. SCHMIDT, Chicago.

Influence of the Hypophysis on Growth and Development with Especial Reference to the Genito-Urinary System. Some Experimental and Clinical Facts.
EMIL GOETSCH, Baltimore.

Recent Advances in Our Knowledge Concerning the Causes of Glycosuria.
T. B. FUTCHER, Baltimore.

SYMPOSIUM ON GONORRHEAL INFECTIONS

Present Status of Treatment of Acute Gonorrheal Urethritis.
JAMES PEDERSEN, New York.

Systemic Gonococcal Infections. Some of the Immunologic Reactions of the Gonococcus.
ERNEST E. IRONS, Chicago.

Thursday, June 6—2 p. m.

SYMPOSIUM ON SYPHILIS

The Importance of the Early Diagnosis of Syphilis.
RICHARD DEXTER AND C. L. CUMMER, Cleveland.

A Comparison of Extracts of Syphilitic and Normal Tissues by Means of the Wassermann and Epiphanin Reactions.
ALBERT KEIDEL AND S. H. HURWITZ, Baltimore.

The Luetin Reaction.
HIDEYO NOGUCHI, New York.

Nerve Recurrences Following Treatment With Salvarsan.
ARTHUR W. M. ELLIS, New York.

Four Years' Experience With the Wassermann Reaction in Practice. A Further Report of Cases Treated from the Standpoint of the Wassermann Reaction with Mercury Alone, with Salvarsan Alone, and by the Combined Method (Salvarsan and Mercury), Including a Preliminary Report on the Noguchi Luetin Skin Reaction.
B. C. CORBUS, Chicago.

SECTION ON NERVOUS AND MENTAL DISEASES

CHAIRMAN, EDWARD D. FISHER, NEW YORK; SECRETARY, E. E. SOUTHARD, CAMBRIDGE, MASS.

Chairman's Address: Injuries of the Spinal Column; With and Without Fracture and Dislocation.
EDWARD D. FISHER, New York.

The Anatomic Basis for and Technic of the Surgery of Intramedullary Affections of the Spinal Cord, With Report of Cases. CHARLES A. ELSBERG, New York.

A Case of Tumor of the Spinal Cord: Surgical Removal and Difficulties of Differential Diagnosis.
B. SACHS, New York.

Tumors of the Spinal Cord and Their Operability.
JOSEPH COLLINS, New York.

Complications in Tabes Dorsalis.
EDWARD LIVINGSTON HUNT, New York.

Intradural Root Anastomosis for the Relief of Paralysis of the Bladder and the Application of the Same Method in Other Paralytic Affections.
C. H. FRAZIER AND C. K. MILLS, Philadelphia.

A Case of Traumatic Psychosis Associated With an Old Depressed Fracture of the Skull, Frontal Region: Operation; Recovery.
CHARLES E. ATWOOD AND ALFRED S. TAYLOR, New York.

Symptomatology of Trifacial Neuralgia.
HUGH T. PATRICK, Chicago.

Thoracic Pains of Neural Origin. FRANK R. FRY, St. Louis.

Pathologic Study of a Case of Acute Poliomyelitis.
A. L. SKOOG, Kansas City, Mo.

A Contribution to the Etiology of Poliomyelitis.
M. NEUSTAEDTER, New York.

Some Considerations on Primary Lateral Sclerosis.
JAMES HENDRIE LLOYD AND S. D. W. LUDLUM, Philadelphia.

The Pathology of Little's Disease, With Report of a Case.
C. L. DANA, New York.

Multiple Sclerosis. L. HARRISON METTLER, Chicago.

Some Morphologic Aspects of the Brain With Respect to Race, Sex and Intellect.
EDWARD ANTHONY SPITZKA, Philadelphia.

A Case of Multiple Cerebrospinal Sclerosis, Presenting Unusual Symptoms Suggesting Paresis; Clinical and Pathological Findings. F. X. DERCUM, Philadelphia.

The Present Status of Histopathology of the Cerebral Cortex in the Various Mental Diseases (with demonstration).
H. A. COTTON, Trenton, N. J.

Aneurysm of the Cerebral Arteries.
J. H. W. RHEIN, Philadelphia.

Clinicopathologic Study of Illuminating Gas Poisoning of the Central Nervous System.
J. W. McCONNELL AND WILLIAM G. SPILLER, Philadelphia.

A Case of Extensive Brain Disease from Endarteritis Probably of Syphilitic Origin.
SAMUEL T. ORTON, Worcester, Mass.

Paranoid Type of Insanity with Jacksonian Convulsions: Syphilitic Pachymeningitis with Microscopic Findings.
N. S. YAWGER, Philadelphia.

Nonne's Four Reactions in Diagnosis of Syphilitic Disease of the Nervous System.
C. R. BALL, St. Paul, Minn.

Predementia Præcox.
WILLIAM RUSH DUNTON, JR., Towson, Md.

Cyanosis in Dementia Præcox.
WILLIAM BURGESS CORNELL, Hathorne, Mass.

Novel Provisions of the Revised Insanity Laws of Massachusetts. HENRY R. STEDMAN, Boston.

Concept of Quasi Peripheral Stimuli in Neuropathology.
E. E. SOUTHARD, Boston.

Convulsive Seizures Associated with Postmenstrual Gastro-Intestinal Disorders. ARTHUR C. BRUSH, Brooklyn.

A Clinical Contribution to the Irregular and Unusual Forms of Status Epilepticus. L. PIERCE CLARK, New York.

Adipositas Cerebralis in Relation to Tumor of Hypophysis.
ALFRED GORDON, Philadelphia.

The Influence of Defective Secretion of the Ductless Glands as a Cause for Neurosis. M. ALLEN STARR, New York.

Heredity in Nervous Diseases and its Social Bearings.
C. B. DAVENPORT, Cold Spring Harbor, N. Y.

Atypical Dystrophy and Myasthenia.
PEARCE BAILEY, New York City.

Some Cases of Hysteria Presenting Symptoms Usually Found Only in Organic Diseases.
BEVERLEY R. TUCKER, Richmond, Va.

The Practical Lessons to be Derived from Recent Work on Hysteria. TOM A. WILLIAMS, Washington.

The Study of the Urine in Nervousness. A Test of Clinical Importance in Functional Disturbances of the Nervous System. EDWARD B. ANGELL, Rochester.

Erythromelalgia. GEORGE A. MOLEEN, Denver.

Pellagra: Its Nervous Manifestations, Based on Personal Observations of Several Cases.
DAVID EDWARD HOAG, New York City.

Exhibit of a Series of Charts Illustrating the History of Cerebral Localization and of Spinal Organization.
CHARLES K. MILLS, Philadelphia.

Ibsen's Master Builder: Its Psychologic Interpretation.
SMITH ELY JELLIFFE, New York City.

Unrecognized Tabes and Morphinism.
G. WILSE ROBINSON, Kansas City, Mo.

DR. T. H. WEISENBURG will exhibit motion pictures of mental diseases on Thursday evening.

SCIENTIFIC EXHIBIT

1. *Continuous Demonstrations.*
By those in charge of exhibits.
2. *Special Demonstrations.*

Wednesday, 2 p. m.

DEMONSTRATIONS RELATING TO SYPHILIS

1. Laboratory Phases. Dr. Hideyo Noguchi, New York. Presentation of cultures of the different types of spirochetes. Will demonstrate inoculated animals and the luetin test.
2. Specimens Showing the Visceral Lesions of Syphilis. Drs. William H. Welch, Baltimore, and W. M. L. Coplin, Philadelphia.
3. The Bone Lesions of Syphilis. Dr. D. S. Lamb, Washington, D. C.

Thursday, 2 p. m.

The demonstrations at this hour will include the presentation of gross specimens, cultures, microscopic sections and lantern slides in illumination of the following:

1. Tumors of the Uterus. Dr. J. A. Sampson, Albany, N. Y.
2. Experimental Endocarditis. Dr. E. C. Rosenow, Chicago.
3. Experimental Nephritis. Dr. M. H. Fischer, Cincinnati.
4. Experimental Intestinal Anastomosis. Dr. W. D. Gatch, Indianapolis.
5. Malaria and Amebic Dysentery. Dr. W. M. James, Canal Zone.
6. A Series of Photomicrographs Illustrating Pathologic Histology. F. B. MALLORY, Brookline, Mass.

Tuesday, Wednesday, Thursday and Friday, a. m.

Employees' Welfare Exhibits, dealing chiefly with the Venereal Peril.—National Cash Register Co.

OTHER MEETINGS

As usual, a number of organizations of specialists or of those engaged in special lines of work will hold their annual meetings just before or after the session of the American Medical Association and in the same city. A list of most of these various societies is given under the heading of "Coming Meetings," under "Society Proceedings" on page 1395 of this issue.

Dr. Charles McIntire, Easton, Pa., secretary of the American Academy of Medicine, sends an announcement of its thirty-seventh annual meeting. This will be held at the Hotel Dennis, Friday, May 31, and Saturday, June 1, with a conference in one of the churches, Sunday, June 2, on "Medicine in Mission Fields."

V. 5
1912

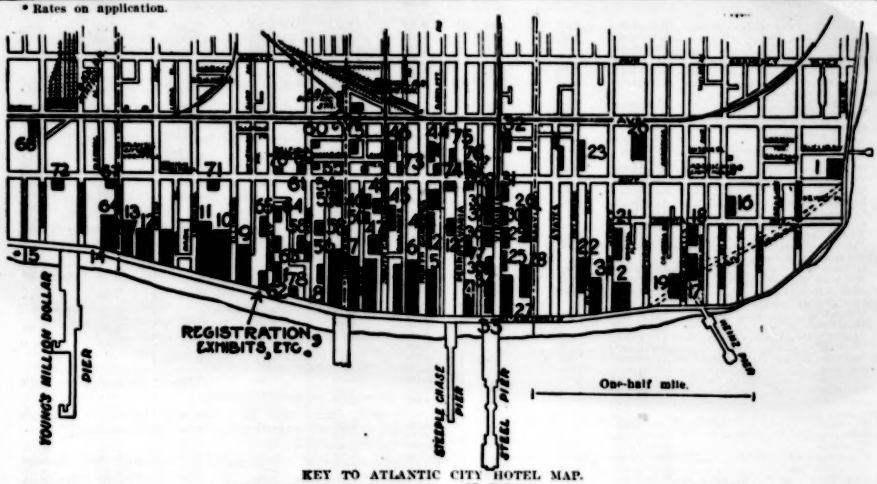
TABLE OF DAILY RATES AND ACCOMMODATIONS OFFERED BY ATLANTIC CITY HOTELS

Hotels Grouped by Streets	Plan	Rooms Without Private Bath				Rooms with Private Bath			
		For One Person		For Two Persons		For One Person		For Two Persons	
		Single Room	Double Room	Double Room	Extra Large Room	Single Room	Double Room	Double Room	Extra Large Room
On the Boardwalk—									
ROYAL PALACE	American	$3.00	$4.00	$8.00	$9.00	$6.00	$7.00	$10.00	$12.00
RUDOLF	American	4.00	4.50	7.00	9.00	5.00	6.00	9.00	12.00
RUDOLF	European	2.00	3.00	3.00	4.50	3.50	4.00	5.00	7.00
ST. CHARLES	American	3.00	4.00	6.00	8.00	6.00	8.00	8.00 to	12.00
SEASIDE HOUSE	American	3.50	5.00	7.00	....	....	6.00	10.00	12.00
STRAND	American	4.00	6.00	8.00	10.00	6.00	8.00	10.00	12.00
HADDON HALL	American	3.50	5.00	6.00 to	12.00	6.00	7.00	10.00 to	14.00
CHALFONTE	American	3.50	4.00	6.00	8.00	....	6.00	10.00	12.00
YOUNGS	European	1.50	2.00	3.00	4.00	2.50	3.00	4.00	5.00
TRAYMORE	American	4.00	6.00	8.00	9.00	5.00	13.00	10.00 to	16.00
BRIGHTON	American	4.00	9.00	9.00	12.00	7.00	11.00	11.00	14.00
MARLBOROUGH-BLENHEIM	American	4.00	5.00	8.00	9.00	6.00	7.00	10.00	12.00
MARLBOROUGH-BLENHEIM	European	2.00	3.00	4.00	5.00	4.00	5.00	6.00	8.00
DENNIS	American	4.00	....	7.00	....	6.00	7.00	10.00	16.00
SHELBURNE	American	4.00	6.00	8.00	10.00	6.00	8.00	10.00	14.00
SHELBURNE	European	2.00	4.00	4.00	7.00	4.00	6.00	7.00	10.00
GLADSTONE	American	3.00	3.50	6.00	7.00	4.00	5.00	8.00	10.00
CHELSEA	American	4.50	5.00	8.00	10.00	6.00	7.00	10.00	12.00
OSTEND	American	3.00	5.00	6.00	7.00	5.00	6.00	8.00	10.00
OSTEND	European	1.50	2.00	2.50	3.00	2.50	3.00	5.00	8.00
Pacific Avenue—									
HALL'S COTTAGE	American	2.00	4.00	....	....	....	....	....	....
HALL'S COTTAGE	European	1.00	2.00	....	....	....	....	....	....
NEW DUNLOP	American	2.50	3.00	5.00	6.00	3.00	3.50	6.00	7.00
NEW DUNLOP	European	1.00	2.00	2.50	4.00	2.00	3.00	4.00	5.00
LEXINGTON	American	3.50	4.00	5.00	6.00	....	....	8.00	10.00
LEXINGTON	European	2.00	3.00	3.00	4.00	....	....	....	....
CHANNELL	American	2.50	3.00	4.00	4.50	....	....	....	....
CHANNELL	European	1.00	1.50	2.00	2.50	....	....	....	....
Vermont Avenue—									
NEW MERION	American	4.00	5.00	8.00	9.00	6.00	7.00	10.00	12.00
Connecticut Avenue—									
PHILLIPS HOUSE	American	3.00	3.50	6.00	7.00	....	5.00	8.00	9.00
St. Charles Place—									
LORAINE	American	3.00	3.50	6.00	7.00	4.50	5.50	7.00	8.00
LORAINE	European	1.50	2.00	2.50	3.00	3.00	....	4.00	....
RALEIGH	American	3.00	4.00	5.00	6.00	4.00	....	7.00	8.00
Maryland Avenue—									
CORNELL	American	2.75	3.00	5.50	6.00	....	....	....	....
CORNELL	European	1.75	2.00	3.00	4.00	....	....	....	....
Virginia Avenue—									
ISLESWORTH	American	2.75	3.00	5.50	6.00	4.50	5.00	7.00	8.00
ISLESWORTH	European	1.75	2.00	3.00	4.00	3.00	4.00	5.00	6.00
MAJESTIC	American	3.00	3.50	5.00	6.00	....	5.00	6.00	7.00
BERKSHIRE INN	American	2.50	3.50	5.00	6.00	4.00	4.50	7.00	8.00
BERKSHIRE INN	European	1.00	1.00	2.00	3.00	....	....	....	....
GRAND ATLANTIC	American	3.00	3.50	5.00	6.00	4.00	4.00	6.00	8.00
BOTHWELL	American	3.00	3.50	5.50	6.00	5.00	....	8.00	9.00
WILTSHIRE	American	2.50	3.00	5.00	6.00	4.00	5.00	8.00	10.00
MORTON	American	2.50	3.00	5.00	6.00	....	....	7.00	8.00
RAYMOND	American	2.50	2.50	4.00	5.00	....	....	7.00	10.00
SHOREHAM	American	....	2.50	5.00	6.00	....	....	7.00	8.00
CLARENDON	American	3.00	3.50	5.00	6.00	....	5.00	7.00	8.00
NEW CAMBLOS	American	2.00	3.50	4.00	5.00	....	....	....	....
NEW CAMBLOS	European	1.00	1.50	2.00	2.50	....	....	....	....
Pennsylvania Avenue—									
HOLMHURST	American	3.00	4.00	6.00	7.00	....	5.00	7.00	8.00
MELROSE HALL	American	2.00	....	....	....	....	3.00	....	....
NEW CHATHAM	American	2.50	3.00	5.00	6.00	3.50	4.00	7.00	....
South Carolina Avenue—									
WARWICK	American	2.00	4.00	4.00	....	3.00	5.00	6.00	....
SEMINOLE	American	2.50	3.00	4.00	5.00	3.00	4.00	5.00	6.00
LAKEWOOD	American	2.00	....	4.00	4.00	....	....	....	....
DUPONT	American	2.00	....	3.00	....	....	....	....	....
RADNOR	American	1.50	....	3.00	....	....	....	....	....
RADNOR	European	1.00	....	2.00	....	....	....	....	....
IROQUOIS	American	2.50	2.50	5.00	5.00	3.00	3.00	6.00	6.00
IROQUOIS	European	1.00	1.00	2.00	2.00	....	....	....	....
BERVORT	American	....	....	4.00	5.00	....	....	....	....
Tennessee Avenue—									
DIXIE	American	....	....	4.00	6.00	....	....	....	....
DIXIE	European	....	....	2.00	3.50	....	....	....	....
ELBERON	American	2.00	2.50	4.00	5.00	....	3.50	6.00	7.00
CONTINENTAL	American	2.00	2.50	4.00	5.00	3.00	4.00	5.00	6.00
CONTINENTAL	European	1.00	2.00	2.00	3.00	2.00	3.00	4.00	4.50
FREDONIA	American	2.00	2.50	4.00	4.50	3.00	3.50	5.00	6.00
FREDONIA	European	1.00	1.50	2.00	3.00	2.00	2.50	3.50	3.50
GREATER PITTSBURG	American	2.00	2.50	3.00	5.00	3.00	4.00	6.00	7.00
GREATER PITTSBURG	European	1.00	1.50	2.00	3.00	1.50	2.00	3.00	3.50
BOUVIER	American	....	2.00	....	....	....	....	....	....
TENNESSEE	American	2.00	2.00	4.00	4.00	....	....	....	....
TENNESSEE	European	1.00	1.00	2.00	2.00	....	....	....	....
TRACY	American	....	2.50	3.00	4.00	....	....	....	....
St. James Place—									
ST. JAMES	American	2.00	3.00	4.00	5.00	....	....	....	....
ST. JAMES	European	1.50	2.00	2.00	2.50	....	....	....	....
FLANDERS	American	2.00	3.00	4.00	6.00	....	....	....	....
SEA CREST	American	2.00	2.00	4.00	....	3.00	....	....	....
EBBITT HOUSE	American	2.00	3.00	4.00	5.00	....	4.00	6.00	....
ELWOOD	American	2.50	3.50	5.00	6.00	....	....	....	....
ELWOOD	European	1.50	2.50	3.00	4.00	....	3.00	4.00	....
DEVONSHIRE	American	2.50	3.00	5.00	6.00	....	4.00	7.00	....
DE LA MAR	American	....	2.00	....	....	....	....	....	....
New York Avenue—									
NETHERLAND	American	2.00	2.50	4.00	5.00	....	3.00	5.00	6.00
NEW HOLLAND	American	2.00	3.00	4.00	5.00	....	....	....	....
WALDORF	American	2.50	2.50	4.00	....	....	....	....	....
CHESTER INN	American	2.50	2.50	5.00	5.00	3.50	3.50	6.00	6.00
HYGEIA	European	.75	1.00	1.50	2.00	....	....	....	....

TABLE OF DAILY RATES AND ACCOMMODATIONS OFFERED BY ATLANTIC CITY HOTELS—*Continued*

Hotels Grouped by Streets	Plan	Rooms Without Private Bath				Rooms with Private Bath			
		For One Person		For Two Persons		For One Person		For Two Persons	
		Single Room	Double Room	Double Room	Extra Large Room	Single Room	Double Room	Double Room	Extra Large Room
Kentucky Avenue—									
New Clarion	American	2.00	2.50	4.00	5.00	3.00	3.50	5.00	....
Frontenac	American	2.50	2.50	4.00	....	....	....	....	....
Deville	American	2.50	3.00	5.00	6.00	3.50	....	7.00	10.00
Monticello	American	2.50	3.00	4.00	5.00	4.00	5.00	6.00	7.00
Monticello	European	1.00	2.00	2.00	3.00	2.50	3.50	3.50	4.50
Westminster	American	2.00	2.50	4.00	5.00	3.00	3.50	6.00	7.00
Westminster	European	1.00	1.50	2.00	3.00	1.50	2.00	3.00	4.00
Silverton	American	2.00	3.00	3.00	4.00	....	....	....	....
Silverton	European	1.00	1.50	1.50	2.00	....	....	....	....
Richmond	American	2.00	3.00	4.00	....	4.00	4.00	7.00	....
Richmond	European	1.00	1.50	....	....	2.50	3.00	5.00	....
Sterling	American	3.00	5.00	6.00	6.00	5.00	7.00	7.00	7.00
Wallingford	American	1.50	1.75	2.25	3.00	....	....	....	....
Wallingford	European	1.00	1.25	1.50	2.00	....	....	....	....
Illinois Avenue—									
Craig Hall	American	2.50	3.00	5.00	6.00	....	....		
Park Place—						3.00	3.50	6.00	7.00
Glaslyn-Chatham	American	2.50	....	5.00	....	....	....	....	....
Cheltenham-Revere	American	2.50	3.00	5.00	6.00	....	5.00	7.00	8.00
Runnymeade	American	*	*	*	*	*	*	*	*
Michigan Avenue—									
Pennhurst	American	3.00	3.50	6.00	....	....	6.00	7.00	8.00
Arlington	American	2.50	3.00	5.00	6.00	....	5.00	8.00	10.00
Arlington	European	1.50	2.00	2.50	3.00	....	....	....	....
Edison	American	2.00	3.00	4.00	5.00	....	....	....	....
Edison	European	1.00	1.50	2.00	3.00	....	....	....	....
Francis	American	2.00	2.50	3.50	5.00	....	3.00	5.00	6.00
Francis	European	1.25	2.00	2.50	3.00	....	2.00	3.50	4.50
Mississippi Avenue—									
Siegmund	American	1.50	3.00	....	....	....	....	....	....
Siegmund	European	1.00	2.00	....	....	....	....	....	....
Georgia Avenue—									
Miller Cottage	American	1.50	2.50	2.50	3.00	....	....	....	....

* Rates on application.



KEY TO ATLANTIC CITY HOTEL MAP.

ON THE BOARDWALK:
1. Royal Palace
2. Rudolf
3. St. Charles
4. Seaside House
5. Haddon Hall
6. Chalfonte
7. Poinsettia
8. Young's
9. Windsor
10. Traymore
11. Brighton
12. Marlborough-Blenheim
13. Dennis
14. Shelburne
*15. Chelsea. (Hotel is one-half mile down Boardwalk from termination of map.)

RHODE ISLAND AVENUE:
16. Westmont

MASSACHUSETTS AVENUE:
17. Lelande
18. Phillips House
19. New Avalon

CONNECTICUT AVENUE:
20. Troxell Hall

NEW JERSEY AVENUE:
21. Pierrepont.

ST. CHARLES PLACE:
22. Raleigh.

DELAWARE AVENUE:
23. Leith Villa

STATES AVENUE:
24. Hanlon

MARYLAND AVENUE:
25. Imperial
26. Allenhurst

VIRGINIA AVENUE:
27. Islesworth
28. Ponce de Leon
29. Avon Inn
30. Berkshire Inn
31. Victoria
32. Colonnade
33. Jackson
34. Bothwell
35. Wiltshire
36 Morton
37. Belmont
38. Shoreham
39. Clarendon

PENNSYLVANIA AVENUE:
40. Craig Hall
41. New Chatham
42. St. Clare
43. Hampton Terrace
75. Holmhurst

NORTH CAROLINA AVENUE:
44. Pembroke

SOUTH CAROLINA AVENUE:
45. Roxborough
46. Lloyd
47. Iroquois
48. Radnor

OCEAN AVENUE:
49. Bon Air
50. Renovo

TENNESSEE AVENUE:
51. Continental
52. Fredonia
53. Howard House
54. Louvan
55. Beaumont

ST. JAMES PLACE:
56. De La Mar
57. Ralston

NEW YORK AVENUE:
58. Morris
59. Bingham
60. Roanoke
61. Hygeia

KENTUCKY AVENUE:
62. Bretton Hall
63. Acme
64. Westminster
65. Stickney

MICHIGAN AVENUE:
66. Pennhurst
67. Edison

MISSOURI AVENUE:
68. Speidel

PACIFIC AVENUE:
69. Hall's (No. 1311)
70. Wittig's (No. 1421)
71. McClelland's (No. 1722)
72. Lexington

V. 5
1912

MEETING-PLACES AND HEADQUARTERS

A List of the Various Meeting-Places and of the Hotels Chosen as Headquarters

The accompanying list shows where the House of Delegates, the Board of Trustees and the various sections are to hold their meetings and also the hotels which have been assigned to certain sections for convenience of members who wish to be together. The locations can be found on the map.

BOARD OF TRUSTEES: Directors' Room, Marlboro'-Blenheim (12).

JUDICIAL COUNCIL: Marlborough-Blenheim (12).

HOUSE OF DELEGATES: Traymore Solarium (10).

COUNCIL ON HEALTH AND PUBLIC INSTRUCTION: Marlborough-Blenheim (12).

GENERAL MEETING: Apollo Theater (78).

SCIENTIFIC EXHIBIT, COMMERCIAL EXHIBIT, REGISTRATION BUREAU, INFORMATION, TELEPHONES AND BRANCH POST-OFFICE: Exposition Building, Kentucky Avenue and Boardwalk.

MICROSCOPIC DEMONSTRATIONS: Young's Hotel (8).

SECTION	HOTEL HEADQUARTERS	MEETING-PLACE
Practice of Medicine	Hotel Dennis	First Presbyterian Church (76)
Surgery	Hotel Chalfonte	Music Hall, Steel Pier
Obstetrics and Gynecology	Haddon Hall	Ball Room, Steel Pier
Ophthalmology	The Strand	West Solarium, Marlborough-Blenheim (12).
Laryngology, Otology and Rhinology	The Seaside	Playroom, Hotel Dennis (13).
Diseases of Children	Hotel Traymore	Hotel Holmhurst (75).
Pharmacology and Therapeutics	Hotel Dennis	Chapel, First Presbyterian Church (76).
Pathology and Physiology	St. Charles	Playroom, Chalfonte (6).
Stomatology	Young's Hotel	Young's Hotel (8).
Nervous and Mental Diseases	Hotel Brighton	First Baptist Church (74).
Dermatology	St. Charles	Central M. E. Church (73)
Preventive Medicine and Public Health	Hotel Shelburne	Masonic Hall (77).
Genito-Urinary Diseases	Hotel Rudolf	Casino, Steel Pier
Hospitals	The Rudolf	The Rudolf (2).

ATLANTIC CITY CLINICS

The New Feature of the Session—Monday's Clinical Program Given

At the 1911 meeting of the House of Delegates, it was voted to establish a Committee on Clinic Days for the purpose of holding clinics the day before and the day following the annual meeting. Dr. Charles L. Mix, Chicago, Chairman, announces the following program which the committee has arranged to be given Monday, June 3, at Atlantic City in the central pavilion on the Steel Pier.

Clinics have also been arranged to be given at Philadelphia, New York City and Baltimore, after the session. The programs for these will be announced subsequently. The program for Monday, June 3, is so representative of the best in the medical profession that the committee hopes for an excellent attendance.

MONDAY MORNING

Dr. Milton B. Hartzell, Philadelphia.—Recent Contributions to the Diagnosis and Therapy of Skin Diseases. 9:15-9:45 a. m.

Dr. Alfred Stengel, Philadelphia.—Recent Contributions Toward a Fuller Understanding of Cardiovascular Diseases. 9:45-10:25 a. m.

Dr. Robert W. Lovett, Boston.—Recent Advances and Some Fundamentals in Orthopedic Surgery. 10:25-11:00 a. m.

Dr. John B. Murphy, Chicago.—Recent Contributions Toward the Advancement of Clinical Surgery. 11:00-12:00 a. m.

MONDAY AFTERNOON

Dr. Louis B. Wilson, Rochester, Minn.—Recent Advances in Medicine and Surgery Incident to the Study of Living Pathology. 2:00-2:30 p. m.

Dr. Christopher Graham, Rochester, Minn.—Recent Advances in the Diagnosis of Affections of the Gastro-Intestinal Tract. 2:30-3:00 p. m.

Dr. Chevalier Jackson, Pittsburgh.—Improved Diagnostic Methods in the Study of the Respiratory Tract. 3:00-3:30 p. m.

Dr. S. Flexner (or associate).—Recent Contributions to Medicine, with special reference to the work of the Rockefeller Institute. 3:30-4:00 p. m.

Dr. Harvey R. Gaylord, Buffalo.—Recent Contributions to the Solution of the Cancer Problem. 4:00-4:30 p. m.

MONDAY EVENING

Dr. W. E. Deeks, Ancon, C. Z.—Observations on Disease at the Canal. 7:45-8:15 p. m.

Major Frederick F. Russell, Medical Corps, U. S. Army.—Army Experience with Typhoid Prophylaxis. 8:15-8:45 p. m.

Medical Inspector E. R. Stitt, U. S. Navy, and Surgeon A. W. Dunbar, U. S. Navy.—Recent Advances in Sanitation in the United States Navy. 8:45-9:15 p. m.

Passed Assistant Surgeon J. F. Anderson.—Recent Contributions by the United States Public Health and Marine-Hospital Service to Preventive Medicine. 9:15-9:45 p. m.

THE ATLANTIC CITY HOTELS

List Issued by the Publicity Bureau for the Period of June 1 to 8, 1912

The following extensive list of hotels is recommended by the local Committee on Arrangements. It is wise for those who will go to Atlantic City to engage their accommodations early in advance. By reference to the map one can see the location of the hotel. Correspondence may be had direct with the hotels, but the Committee on Hotels, of which Dr. W. E. Darnall, 1704 Pacific Ave., Atlantic City, is chairman, will be glad to give further information, advice and assistance.

Bureau of Information

There will be a Bureau of Information in the Exposition Building, Kentucky Avenue and Boardwalk. It will occupy a booth near the Registration Bureau and will be manned by efficient clerks to give out data on the meetings, hotels, etc.

It follows, of course, that all concerned in any arrangements for any events at Atlantic City should give full particulars to the Committee on Bureau of Information. Especially should the committee be informed of any changes in previously announced arrangements.

The Branch Post-Office

It will facilitate matters if those who have reserved rooms at hotels will have their mail from home addressed to those hotels. Others may have their mail addressed "Care American Medical Association, Exposition Building, Atlantic City." The Branch Post-Office is in the Exposition Building, near the Registration and Information Bureaus and is open all day Monday to Friday.

THE ENTERTAINMENTS

The Plans for Social and Amusement Features at the Annual Session

The members and guests of the Association have had provided for their entertainment and amusement the following program:

Monday night there will be banquets and smokers of some of the societies which meet before the meeting of the Association. The Association of State Secretaries and Editors is one of the organizations that meets on this evening. The program is given in another column.

Tuesday night the banquets, smokers and vaudevilles of the sections and the various medical alumni and class reunions, will be held. The time and place for these various entertainments and further details will be announced later, or information concerning these events may be had at the registration bureau.

Wednesday night a reception in honor of the President will be given in the Music Room, Steel Pier. The reception will be followed by a dance. This is the most formal of the social functions of the meeting.

Thursday night there will be a musicale in the Ball Room and Music Room on the Steel Pier.

(Continued on page 1406)

THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION

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[For other information see second page following reading matter]

SATURDAY, MAY 4, 1912

RHEUMATIC MYOCARDITIS

In 1904 Aschoff described certain peculiar, microscopic nodules in the myocardium, which he regarded as specifically characteristic of acute articular rheumatism. These nodules are made up of large cells with one or more large, irregular or polymorphous nuclei, and often but not always of small and large lymphocytes as well as ordinary polymorphonuclear leukocytes, especially at the margins. Aschoff named the process "myocarditis rheumatica."

Since then these peculiar formations have been made the subject of three or four communications in German periodicals, most recently by Fraenkel,[1] who discusses their nature and significance on the basis of a careful investigation of twenty cases, in eight of which there was a definite history of rheumatism, while in most of the others the character of the endocarditis present and other indications pointed to the previous existence or presence of this disease. He found the nodules in all of his cases save three. In these three cases there was, it is true, a history of rheumatism, but from three to twenty years had elapsed since the attack. In another case, however, in which the nodules were present in large numbers, the patient had had rheumatism eighteen years before. The nodules were not present in the myocardium of patients who had died from infectious diseases of well-established etiology.

Fraenkel reaches the conclusion that the peculiar formations in question occur only in instances of genuine rheumatic infection although not necessarily in all such instances. He even goes so far, in his claims for their specifically rheumatic nature, as to maintain that the streptococcal nature of articular rheumatism must be regarded as questionable because, while certain streptococci reproduce very completely the picture of rheumatism in rabbits, yet they have not been shown to induce in this animal the formation of the myocardial nodules discovered by Aschoff. Fraenkel is inclined, therefore, to the view that we have not yet learned the true cause of acute articular rheumatism and the valvular and myocardial lesions that so frequently are associated with it.

In view of the fact that the nodules may be absent in rheumatism, it may well be questioned whether so much importance should be given to the failure so far to observe them in the hearts of rabbits infected with streptococci from cases of rheumatism. Thorough search for the nodules should be made in rabbits infected with rheumatic streptococci, because, if found, it would strengthen greatly the evidence in favor of the streptococcal nature of articular rheumatism. According to Fraenkel the nodules arise in the periadventitial tissue of the smaller vessels. They are always microscopic. With the Unna-Pappenheim pyronin-methylene-green stain the protoplasm of the cells stains a characteristic red so that they are easily recognized. The areas occur especially in the subendocardial parts of the septum and it seems that with time they may change into scars. It is interesting that Fraenkel found these areas in the myocardium in a case of chorea. He regards this as a further support of the view that chorea and articular rheumatism depend on the same causes. The discovery of these peculiar areas in the myocardium in rheumatism is important and interesting. Further investigations are necessary before their full significance can be settled.

1. Fraenkel: Beitr. z. path. Anat. u. z. allg. Path., 1912, iii, 597.

THE GENERAL EFFECTS OF VEGETABLE AND MIXED DIETS ON THE ALBINO RAT

The effects of special diets on animals have been studied mostly for so short a time that often definite conclusions are hardly warranted. The fact, for instance, that an animal maintains its weight and apparent health for a limited time on a special diet is not a reliable indication that it could do so throughout its whole life. Consequently, the study of the effects of special diets ought to be continued during the animal's lifetime and, if the effect on the offspring is to be ascertained, the study should extend also to succeeding generations.

An experiment of this general nature to test the effect of a strictly vegetable diet and a mixed diet on the spontaneous energy, the growth, and the length of life of the albino rat has been conducted by Slonaker,[1] and the results obtained are interesting. From the observations it appears that the omnivorous rats were much more active and voluntarily did more work than the vegetarian rats, the average ratio of the efficiency, as measured by special apparatus, being 7½ to 1. This difference in activity did not become noticeable to any extent until about two or three months after the experiment began.

Slonaker placed four rats, male and female, of the same parentage and age, in rotary cages with speedometers attached. At the end of twenty-five months the record of the meat-eating female rat was 5,477 miles, while the meat-eating male rat had 1,447 miles to his credit. The female vegetable-fed rat covered 447 miles and the vegetable-fed male rat only 200 miles.

1. Leland Stanford Junior University Publications, University Series, 1912.

The vegetarian rats became old earlier and their growth was greatly retarded, the ratio of the maximum weights being as 1.62 to 1 in favor of the omnivorous animals, and the general conditions of the latter were very much better, the vegetarians being frail, weak and without energy. While the average life of the omnivorous rat was 1,020 days, that of the vegetarians was 555 days only.

To what extent these very striking results may be applied to man is difficult to determine. It is to be remembered that the rat, like man, is by nature an omnivorous animal. Slonaker points out that numerous recorded observations on man with respect to the effects of diets, seem to indicate that he does more work, attains greater stature and accomplishes more both mentally and physically on a mixed diet than on a vegetable diet, or almost exclusively vegetable diet. There is a very strong likelihood, then, that the results of the experiments on the white rat would be duplicated in the case of man if he were subjected to similar conditions throughout his lifetime. The experiment of Professor Slonaker, without perhaps settling anything, adds to the joy of life as a contribution to the perennial discussion of vegetarianism versus a mixed diet.

THE TOXIC PROPERTIES OF FAMILIAR INTESTINAL PARASITES

The great advances which have been made in the last generation or two in matters of public and personal hygiene have served to diminish the possibility of serious trouble from the verminous parasites which may infest man. Enforced habits of cleanliness, governmental food inspection, the development of sanitary engineering and modern methods of sewage disposal are among the potent factors which have made the zooparasitic diseases of man less conspicuous among educated peoples. Tapeworms, eelworms, pinworms and whipworms no longer occur in epidemic invasions where careful personal habits are cultivated; yet it must be remembered that there are large groups of individuals, particularly in the warmer countries, whose traditions and modes of life invite the continued existence of animal parasites in the human host.

The existence of some of these parasites, in particular those which inhabit the alimentary tract, calls forth little more than passing curiosity among physicians. Innumerable cases of such infection presumably pass through the hands of physicians without detection, although undoubtedly the striking studies on the hookworm and some of the intestinal protozoa of man have served to center attention on alimentary conditions in a routine way that was unknown a few years ago. It is, of course, realized that a tapeworm or pinworm is something which should be eliminated when once detected, but no serious consequences are apprehended from its presence as a rule.

The purely mechanical injury to be expected from two or three eelworms in a patient seems minimal on hasty consideration; yet the possibilities which their presence involves in the way of local injury to the intestinal mucosa by the mere presence and wandering habits of the parasites are brought home when some of the statistical facts are reviewed. A boy is known to have discharged 600 eelworms in a single day and no less than 5,100 in the course of three years. Is it surprising if these erratic organisms escape into this or that duct, or perforate an ulcer, or find their way into the most distant passages of the body, such as the respiratory tract, the eustachian tubes or the urinary tracts? Manson is stated to have treated his young patients in China twice a year with santonin as a matter of routine. The interesting monograph of Stiles[1] on the zooparasites of man furnishes data enough to make it seem important, at least in unhygienic tropical countries, from a prophylactic standpoint to treat all cases of ascaris infection which are found, even independently of the question as to whether any moderate or serious local and perhaps reflex symptoms are traced to the presence of the worms in the patient under consideration.

Modern experience with the abnormal bacterial parasites of the alimentary tract has taught that they may become prolific sources of chemical products potent for harm in the organism. The toxins elaborated by the microorganisms are among the most subtle of poisons. It is readily conceivable that the animal parasites also may secrete toxic or otherwise active substances which are not without moment to their hosts; and we may well inquire whether the possible dangers of the enteroparasites are limited solely to the harm which they may institute in a purely mechanical way. The entire lack of symptoms referable to these organisms, or their extremely mild character, has sufficed to divert attention from the possible production of specific poisons by them. There have at times been suggestions of the existence of toxic substances (toxins, ptomains, leukomains, alkaloids) in connection with parasites, indicated by diverse symptoms referred to the presence of the latter in man. Urticarias, pallor, vertigo, psychoses and a host of other apparently unrelated conditions have been attributed to these parasitic infections; but the possible etiologic association has awaited more definite knowledge regarding the biochemistry of the organisms.

An important contribution to this subject has lately been made by Dr. Flury[2] in Professor Faust's laboratory at Würzburg in a comprehensive study of the eelworm (ascaris). It is made clear by this report that the tissues and excreta of these worms contain numerous compounds capable of inducing local hyperemia, inflammation and necrosis. Volatile aldehyds and fatty acids, including such representatives as valerianic, butyric, formic, acrylic and propionic acids were actually isolated,

1. Stiles: Osler's Modern Medicine, 1907, i, 527.
2. Flury, Ferdinand: Zur Chemie und Toxikologie der Ascariden, Arch. f. exper. Pathol. u. Pharmakol., 1912, lxvii, 275.

as well as various alcohols and esters which act as local irritants.

With this wealth of pharmacologically active compounds available in ascariasis, some of the occasionally described symptoms can now better be understood. The irritation of the mucous membranes which some zoologists have described in making dissections of eelworms is presumably attributable to the familiar irritant action of some of the aldehyds. The action of acid esters on the capillaries serves to throw light on the urticarial eruptions which have been noted. With such an array of formidable chemical compounds it is not necessary to call on mechanical factors to explain the reported digestive disturbances and the severe damages to the intestinal mucosa. The secreted acid irritants are sufficient to induce such pathologic conditions. Even the disturbances of the central nervous system—the hallucinations, hysteria, delirium, etc., described in the literature—are now referable to the incoordinations characteristic of intoxication with the valerianic derivatives present in notable amounts. The anemias characteristic of many who are afflicted with invasions of animal parasites find their explanation in the well-known hemolytic action of the unsaturated acids, notably oleic and acrylic acids. By experiments with ascaris products on animals Flury was able to induce many of the typical phenomena incidentally noted in the past by clinical observers. It seems likely, therefore, that not one, but many toxicologic substances are furnished by the organism of ascaris, thereby explaining the great diversity of symptoms which may be associated from time to time with these parasites.

Every new inroad into such hidden mysteries is a step toward the eradication of unnecessary disease.

SYNTHETIC FOOD AND ARTIFICIAL NUTRITION

Proteins, fats and carbohydrates — the substances which make up the conspicuous bulk of the food intake of man and animals — are compounds of marked chemical complexity. It must be confessed that we have at best been able to form only a vague idea of the real make-up of the material offered, when proteins, for example, are fed to an individual. Considerable is known about the amino-acid "building-stones" which enter into the protein complex, and something about their probable arrangement therein. But great gaps still remain to be filled. This lack of knowledge has placed a serious barrier before any really fundamental study of nutrition. The plant physiologist has an easier problem. He can mix together extremely simple chemical substances—phosphates, nitrates, chlorids, etc.—and watch the vegetable organism grow through synthesis almost from the elements themselves. And so it has happened that this marked constructive efficiency of the plant has long been contrasted with the relative lack of synthetic power in animal tissues.

From time to time new evidences of the power of animals to build up as well as to break down have been collected. No recent report, however, has awakened the interest which centers in experiments just published by Prof. Emil Abderhalden,[1] the well-known physiologic and chemical investigator now located at Halle. Engaged as he has been for years in common with others in attempting to unravel the complexity of protein structure, he has at length furnished a beautiful demonstration that the animal organism is able to construct all of its cell constituents from the simplest "building-stones." This was accomplished by feeding animals on food mixtures in which the proteins have been completely predigested so that only amino-acids remain; while the carbohydrates were furnished in the form of simple sugars and the fats were replaced by glycerol and fatty acids into which they are ordinarily resolved in the digestive tract. The experimental animals remained in excellent nutritive equilibrium and even gained weight in some cases, showing the possibility of growth, i. e., constructive activity, as well as mere maintenance. Abderhalden has even gone a step further and prepared the foods in the form of a mixture of isolated chemically pure amino-acids, along with the other simple compounds referred to above; and he had success in feeding these likewise.

Here surely is an experiment in simplified nutrition! Amino-acids, sugar, fatty acids, glycerol and inorganic salts built up with apparent ease into living animal structures! We must at length admit that the synthetic capabilities of the animal organism have been greatly underestimated. Nor were these trials of brief duration only. Some of the feeding experiments with the simple products of complete digestion extended over seventy-four days—too long a time to call on the stored nutrients to satisfy the tissue-requirements. There is, moreover, a wider outlook disclosed by these important investigations. The chemist has already solved the possibility of manufacturing the compounds above referred to in the laboratory from the very elements. As Abderhalden remarks, it is now merely a question of cost to prepare all these essential fragments. The complete synthesis of an adequate diet has almost become a reality.

Although it may be remarked that the familiar use of a synthetic diet is likely to remain beyond the realm of probability long past our day, there is nevertheless a practical aspect of these investigations that deserves emphasis. Since it is an assured possibility that the organism can be nourished appropriately with predigested foodstuffs, these products appear in a new light in the domain of therapy. It is possible that if the gastro-intestinal tract, with its digestive ferments, leaves us in the lurch through disease, we may be able to carry on the same cleavages outside of the body and to offer predigested products.

1. Abderhalden, E.: Fütterungsversuche mit vollständig abgebauten Nahrungsstoffen, Ztschr. f. physiol. Chem., 1912, lxxvii, 22.

Current Comment

INFANTILE PARALYSIS IN 1910 AND 1911

While the number of cases of infantile paralysis in 1911 was not nearly so large as that in 1910, yet the collected statistics, as given in *Public Health Reports*, April 19, 1912, show that the disease was widely distributed throughout the United States. The number of reported cases in 1910 was 5,861, with 950 deaths; in 1911, 1,931 cases with 440 deaths. These figures are taken from the reports of states in which the disease was reportable and from the printed bulletins of some other states. The report compiled by the Bureau of the Census from the registration area shows that the number of deaths for 1910 was 1,459. The data, however, are incomplete, and therefore the number of cases was undoubtedly considerably larger than these figures indicate. The deaths are probably more completely reported than the total number of cases. These figures, however, bear out our previous knowledge that the disease has alternate active and more or less quiescent periods owing to lack of susceptible individuals or to the attenuation of the infection. Both causes probably operate. An extension of the registration area to all of the states and the securing of complete reports would no doubt greatly increase the number of reported cases and would give valuable aid in the epidemiologic study of the disease.

THE PREPARATION OF MANUSCRIPTS FOR PUBLICATION

The preparation for publication of the many papers read in the annual meetings, not to mention the volunteer contributions, is a more formidable task in THE JOURNAL office than many imagine. It is not probable that even authors who are extremely careful in the preparation of their manuscripts realize the amount of editorial work required on them before they are ready for the printer. With a little care and attention to a few simple suggestions, this labor could be greatly lessened, while no more work would be imposed on the writers of papers. It would, of course, require too much space here to mention all the points to which authors may profitably give special care. This subject, moreover, has been fully covered in a recent publication.[1] Attention, however, may be called to two or three points. It is almost needless to say that in this day manuscripts should be typewritten; in fact, nearly all of them are so prepared. But many are written in whole or in part with single spacing — an inexcusable fault, since double or triple spacing, which gives room for adding subheads, directions to the printer, etc., is just as easy. We have previously[2] mentioned the frequent lapses found in case reports. A third matter to which attention should be called concerns references to other papers or authors. THE JOURNAL publishes a pamphlet[3] explaining the bibliographic style followed in this office. It is better to treat bibliographic references as foot-notes; and all foot-notes, bibliographic or not, should be numbered consecutively in a single series from the beginning to the end of the paper. This may seem trivial, but is really important. If the author wishes to refer, further on in his article, to an author and publication already cited in precisely the same manner, he need not repeat the foot-note, but should merely use the reference number already assigned to that particular foot-note. In the manuscript the foot-notes may be placed at the bottom of the pages or at the end of the paper. Care in following these few simple directions and in reading manuscripts over after they have been copied will earn the undying gratitude of manuscript editors, compositors and proof-readers, not to mention the "ultimate" readers. It will also repay the author with the consciousness of having produced a creditable piece of work.

1. Suggestions to Authors, published by the American Medical Association. Sent on receipt of 25 cents.
2. Easy Writing versus Easy Reading: A Hint to Authors, THE JOURNAL A. M. A., March 11, 1911, p. 750.
3. The Bibliographic Style of the American Medical Association Press. Sent on receipt of 10 cents.

SOME ROMANTIC RUBBISH OF PSEUDOSCIENCE

The average editor is often tempted to quote a striking or interesting item without due regard to the correctness of the information given or the weight of authority sustaining it. The more striking an item is, however, the greater the chance that, having gone through a great many hands, it may be correspondingly full of errors. An example in point is an inventory of the constituents of an average man of 150 pounds alleged to be based on chemical analysis. There is said to be enough hydrogen in combination in such an average man to fill a balloon and carry him above the clouds; enough lime to whitewash a chicken-coop; enough sulphur to rid a dog of fleas. These and other points mentioned made the paragraph seem of enough value to be printed not only in newspapers, but also in several medical journals. But these are the only items that are uniform in all versions. In one paper a man is said to contain enough iron for one medium-sized nail; in another, four ten-penny nails. In one his fat is alleged to be sufficient to make a cake of soap; in another, seven bars. The phosphorus constituent is said in one paper to be sufficient to make 2,200 matches, and in another, 8,064 boxes of matches—some difference. The average editor, to be sure, may argue that the items are interesting no matter which amounts are the correct ones. The heading used in one paper is "Unromantic but Scientific." We submit that a better one would be "Romantic but Unscientific Rot."

OXYGEN INTOXICATION

It was recently asked if the authorities in charge of the Olympian Games this year to be held in Stockholm would permit the competitors to carry oxygen bags to take whiffs from while they run; it was contended—and this by so eminent a scientist as Sir Edwin Ray Lankester —that "as oxygen gas is not a drug, but as natural an article of consumption as water, there seems to be no reason why the runner should be disqualified from refreshing himself with it, as he may with water or soup." Oxygen gas is a drug in the sense that it has therapeutic value in affections of impaired respiration, such as comas and lobar pneumonia. Otherwise pure

oxygen is as deleterious as any stimulant, for the stimulation is followed by depression. Frequent intoxication by this means must inevitably exhaust the vitality and shorten life. Nor is it true that "pure oxygen is as natural an article of consumption as water." Oxygen is safe for those in health only in its mixture as atmospheric air, with several parts of nitrogen. This is the only suitable form of oxygen inhalation for normal individuals — the form to which human and all other life has during the ages become adapted. Meddling with Nature is bound to be disastrous in the long run. Athletes have before this been given "jags" of undiluted oxygen, to stimulate them to outdistance their opponents. But such oxygen-made records will not for a moment stand in the estimation of a true sportsman, because they are not made under the conditions with which human life must ordinarily cope. Besides, such "sport" must inevitably invite collapse, ruined myocardia and premature death.

A MEMORIAL PLANNED TO BE FORGOTTEN

It seems contradictory to charge the founder of a memorial with plotting its destruction, and yet it is easily possible so to arrange a commemorating institution that its existence is self-limited. An instance in point is the passing of a library left as a memorial to a physician, and housed in a building which he provided. There was no fund for the adding of books to this library. The result was that it contained only the books that were left by the physician himself, and these of course were old. Few of them, however, were old enough to be of great value; only one or two were rare books, the others only the ordinary type of fifty odd years ago. The income consisted solely of the rents from the building itself, which was managed by the heirs to whom the building was to revert when it ceased to be self-supporting. The natural result was that finally the income was not sufficient to maintain the place. The matter was taken into court and permission given to close it up. Libraries, when they cease to add new books, also become dead and therefore, apart from sentiment, there may be little to regret in the fact that this library protracts no longer its separate existence. Indeed, it is possible that there is too much striving for post-mortem immortality, and that a similar euthanasia for some other memorials would be a good thing for the world. Still, one must not disparage the pious sentiment that seeks to perpetuate the names and virtues of the dead, and since memorials must be the form in which many good works are embodied, it is instructive to note an example of the way in which a memorial should not be planned.

THE ATLANTIC CITY SESSION

Next month the American Medical Association will hold an annual session at Atlantic City for the fourth time. This week we devote considerable space to the subject, especially to the programs of the fourteen sections. A glance at these programs will reveal that a variety of first-class scientific work is to be offered; in fact, one cannot realize the variety, the number and the character of the subjects to be discussed without realizing what modern medicine means, and what tremendous educational and uplifting influence such meetings as the annual sessions of the American Medical Association must be. But, while the scientific programs will be attractive to every medical man interested in his professional work, these gatherings offer opportunities for relaxation, for social enjoyment and for professional intercourse that can be obtained at no other time and under no other circumstances. There are brought together the city physician, the physician from a remote corner of the country, the specialist, the laboratory worker and the research student — all coming together for a common purpose: the improvement of self and of others. Ordinarily, after meetings had been held three times at one city, that city itself might not be considered any attraction. With Atlantic City, however, it is different. Here, indeed, it is less the city than the location—the proximity to the mighty, ever-changing Atlantic Ocean — that offers the attraction, especially to the inlander. Atlantic City, however, is practically attractive because it offers hotel facilities that are unique, in that there is accommodation for all who attend: those who want luxuries and are willing to pay for them can get them; those who are satisfied with plain, ordinary, every-day rooms and living can get them at a reasonable expense. Then, the Atlantic City people intend to do as they did before: make it pleasant for all who attend. They are, as usual, preparing for the coming meeting, and are evidently determined to make it even more satisfactory than any of the previous sessions. Appearances indicate that the coming session at Atlantic City will be the largest ever held by the Association.

DR. PEARSONS

With the death of Dr. D. K. Pearsons, chronicled in another column of this issue, a remarkable character has passed away. After practicing medicine in New England for a few years, Dr. Pearsons came to the west and engaged in the real estate business, in which he made a fortune of several million dollars. For many years past he has been happily busy dispensing this immense sum in the endowment of various institutions, choosing mainly those smaller colleges of the middle west which seemed to him to be especially efficient in the upbuilding of Christian character. It was his pet fancy to be his own administrator, and he died a poor man, having reserved for his current expenses simply an annuity which terminated with his death. His name is honored throughout the country, and his greatest memorial is in the lives of young men and women who are better able to prepare themselves for life through the endowments he made to institutions of learning.

WHAT DETERMINES THE ONSET OF LABOR?

The existence of a chemical correlation between the mammary glands and the uterus and its appendages has long been postulated. The modern discussion of hormones has concerned itself with the activators of milk secretion; and their origin in this case has variously been ascribed to the placenta, the developing fetus and

V. 5
1912

even the uterus. But regarding the stimulus which incites this latter organ to activity, in other words, which brings on the onset of labor in the pregnant female, little is known. Still less can be said with reference to the precise causes of premature or delayed labor. In connection with experiments on the etiology of milk fever in cattle and its relation to human eclampsia which were recently discussed in THE JOURNAL,[1] Healy and Kastle[2] made the observation that pregnant guinea-pigs aborted after receiving intraperitoneal injections of the colostrum of cows. Fresh milk failed to produce abortion after injection. Whether the substance, present in colostrum but not in milk, and capable of bringing about abortion, is of the nature of the so-called hormones cannot yet be stated with any certainty. The fact that it retains its potency after being heated to boiling for a short time indicates that it differs from soluble ferments or enzymes and many toxins. For the moment the classification of the substance is of secondary consequence. The chief interest in this announcement centers in the suggestion of a hitherto unrecognized correlation between the mammary glands and the uterus — an indication that the internal secretion of the mammary gland may stimulate the mother to labor and thus induce the birth of the offspring.

Medical News

ALABAMA

New Officers.—Marengo County Medical Society: president, Dr. J. B. Whitfield, Demopolis; secretary, Dr. W. H. Abernethy, Old Spring Hill.

Personal.—Dr. William H. Sanders, Montgomery, has been reelected state health officer. Dr. Sanders, who has been ill with influenza, is reported to be much better.——Dr. T. L. Robertson, Birmingham, has resigned as a member of the state board of medical censors.——Dr. J. W. Lawrence, Turkeytown, was kicked by a horse, April 13, fracturing his collar bone and causing serious bruises on the face and body.

Home-Coming Week.—The "Home-Coming Week" of the alumni of the School of Medicine of the University of Alabama, Mobile, will be held May 3-6. An interesting program has been arranged, both for the reading of papers and in clinical work. On the first day there will be a symposium on public health matters and sanitation; on the second day, the Rhett Goode lecture will be given; on the third day, there will be a boat ride to the Eastern Shore of Mobile Bay or Fort Morgan, and on the fourth day, the meeting of the State Alumni Association will be held. The following officers were recently elected: president, Dr. John O. Rush; vice-president, Dr. Percy O. Chaudron; secretary, Dr. Eugene Thames, and treasurer, Dr. Marion J. Bancroft, all of Mobile.

State Association Meeting.—The annual meeting of the Medical Association of the State of Alabama was held in Birmingham, April 17-19, under the presidency of Dr. Lewis Coleman Morris, Birmingham. Resolutions were presented by Dr. L. G. Woodson, Birmingham, and adopted by the association, placing the association on record as giving its unqualified endorsement to the policy of the *Birmingham Ledger* in refusing to receive quack medical advertisements. Mobile was selected as the next place of meeting and the following officers were elected: president, Dr. Harry T. Inge, Mobile; vice-president, Dr. H. W. Blair, Sheffield; secretary, Dr. J. Norment Baker, Montgomery (reelected); treasurer, Dr. H. G. Perry, Montgomery (reelected); orator, Dr. Henry Green, Dothan, and censors, Drs. William H. Sanders, Mobile; Russell M. Cunningham, Ensley, and Charles A. Mohr, Mobile.

1. New Suggestions Regarding Eclampsia, THE JOURNAL A. M. A., April 20, 1912, p. 1201.
2. Healy, D. J., and Kastle, J. H.: The Internal Secretion of the Mammæ as a Factor in the Onset of Labor, Jour. Infect. Dis., 1912, x, 244.

CALIFORNIA

New Officers.—Santa Barbara County Medical Society: president, Dr. Rexwald Brown; secretary, Dr. T. A. Stoddard, both of Santa Barbara.

New Hospital.—Dr. H. S. Warren, Coalinga, has purchased the American Hospital, Coalinga, which will from this time on be known as the Coalinga General Hospital. Dr. Tillotson is to be retained in charge of the institution.

Anniversary Meeting.—The forty-fourth anniversary of the founding of the Sacramento Society for Medical Improvement was celebrated March 17, with a banquet at the Hotel Sacramento. Dr. George A. White acted as toastmaster and Dr. H. L. Nichols, a charter member, and Dr. T. W. Huntington, San Francisco, were guests of honor.

Personal.—Dr. J. B. Wood, Oakland, was seriously injured in a collision between his automobile and a railway train at Emeryville.——Dr. Thomas W. Huntington has resigned from the Health Board of San Francisco.——Dr. S. W. Hopkins, Lodi, has been elected medical director of the Grand Army of the Republic for the Departments of California and Nevada.

The Battle Against Tuberculosis.—The executive committee of the State Tuberculosis Commission, headed by Dr. George H. Kress, Los Angeles, has named a group of fifty citizens—more than one-half of whom are from Los Angeles and vicinity—as members of ten sub-committees which are to make a comprehensive report of the conditions in their respective localities. On the summit of a hill, near San Dimas, the largest tuberculosis sanatorium in the world is planned, to be erected by the state, at an initial expense of about $150,000.

Medical Building for Los Angeles.—At a meeting of medical men of Los Angeles, April 2, the Los Angeles Medical Association Building Company was organized and the following were elected directors: Drs. H. Bert Ellis, Albert Soiland, O. O. Witherbee, Stanley P. Black, J. R. French, Granville MacGowan, John R. Haynes, William M. Lewis, C. W. Bryson, E. C. Moore and C. H. Whitman. The directors elected Dr. H. Bert Ellis, president, and Dr. J. R. French, secretary. It is proposed to build a twelve-story office building at the corner of Sixth and Olive Streets for the exclusive use of physicians and dentists, to cost a million and a half dollars. The building is to have stores on the ground flour; offices up to the twelfth floor and on the twelfth floor the clubrooms, museum, library, etc., of the Los Angeles County Medical Association, with an amphitheater on the roof, roof-garden and probably an emergency hospital.

ILLINOIS

New Officers.—Edgar County Medical Society, at Paris, April 17: president, Dr. B. G. R. Williams, secretary-treasurer, Dr. George H. Hunt, both of Paris.

Tuberculosis Colony Opened.—The tuberculosis tent colony at the Oak Forest Infirmary was opened April 24. Twelve tents are already occupied and others are being prepared.

Chicago

Personal.—Dr. William Lenneker, for more than forty years a practitioner of Chicago, is reported to be seriously ill at his home.——Dr. Frank Billings and daughter sail for Europe, May 22.——Dr. and Mrs. E. N. Elliott sailed for Europe, April 22.

New Lying-In Hospital.—At a meeting of the Mothers' Aid of the Chicago Lying-In Hospital and Dispensary, April 24, it was announced that the association would soon erect an additional hospital building at Fifty-First Street and Vincennes Avenue, to cost $250,000. The new building will be five stories in height and will have accommodation for 107 patients.

Postgraduates Banquet.—At the close of a course of postgraduate study by some eighty-two men from various states in the middle west, they were tendered a banquet by the faculty of the Chicago Policlinic and Hospital. There were first a series of surgical clinics, then a reception with addresses by Dr. John H. Chew, president of the faculty, and by Dr. C. W. Barrett, with responses by members of the class. It was a happy occasion. While in Chicago, a number of the members of the class took occasion to visit the Association building and to see some of the details of the various departments.

Medical Reserve Corps Election.—The annual meeting of the Medical Reserve Corps, U. S. Army, Illinois Division, was held at the Sherman House, April 29. Lieutenant Frank Billings presiding. Lieut-Col. William B. Bannister, M.C., U.S. Army, gave an interesting practical talk on the routine of the officer of the Medical Reserve Corps from the time he is called into service until he reaches the front, and his duties

there. The following officers were then elected: president, Lieut. Edmund J. Doering; vice-president, Lieut. Samuel C. Stanton; secretary-treasurer, Lieut. J. Allan Hornsby, and councilors, Lieuts. Jacob Frank and Thomas J. Sullivan.

INDIANA

School of Public Hygiene.—The Indiana University School of Medicine announces that a school of public hygiene will be opened, beginning with the fall term of this year. The course will be post-graduate and will lead to a degree of Doctor of Public Hygiene.

Appointments in Medical Corps.—Dr. La Rue D. Carter, Richmond, has been appointed major and Dr. Frank C. Robinson, Martinsville, captain, and Drs. John W. Emhardt and Blanchard D. Pettijohn, both of Indianapolis, have been appointed first lieutenants in the Medical Corps of the National Guard, Ind.

State Board Election.—At the annual meeting of the State Board of Medical Registration and Examination, Dr. James M. Dinnen, Fort Wayne, was elected president; Dr. William A. Spurgeon, Muncie, vice-president; Dr. William T. Gott, Crawfordsville, secretary, and Dr. Moses S. Canfield, Frankfort, treasurer.

District Society Meeting.—At the annual meeting of the Twelfth District Medical Society held in Fort Wayne, April 10, the following officers were elected: president, Dr. J. W. McKinney, Bluffton; vice-presidents, Drs. S. V. Wilking, Roanoke, and M. E. Klinger, Garrett; and secretary-treasurer, Dr. Lyman T. Rawles, Huntertown.

Counties of State Grouped.—The ninety-two counties of the state have been separated into five groups by the State Board of Health for the work of the five commissioners appointed by the governor to arouse interest in and prepare an exhibit for the International Congress of Hygiene and Demography. The north section is to be in charge of Dr. J. B. Berteling, South Bend; the north central section in charge of Dr. J. S. Boyers, Decatur; the central section in charge of Dr. S. E. Bond, Richmond; the southeast section in charge of Dr. H. H. Sutton, Aurora, and the southwest section, in charge of Dr. J. H. Morrison, Hartsville.

The Tuberculosis Conflict.—The Antituberculosis Society from Montgomery County organized at Crawfordsville, April 16. Dr. F. A. Dennis was elected secretary.——An antituberculosis society has been organized at Danville, with Dr. T. J. Beasley president and Dr. Amos Carter, Plainfield, treasurer.——Dr. C. C. Morris, Rockville, has been elected president of the Parke County Antituberculosis Association.——At the annual meeting of the Vanderburg County Antituberculosis Society in Evansville, it was reported that during the year 52 patients were treated at the Boehne farm, with six deaths; 13 patients left without the consent of the physicians; 11 were discharged in the regular way and 3 were expelled for insubordination. There are at present 16 patients at the camp. Dr. J. Y. Welborn was elected president; Dr. Leopold Heimann, vice-president; Dr. C. A. Hartley, general secretary and superintendent of the Boehne farm, and Dr. G. C. Johnson, recording secretary.

Personal.—Drs. E. D. Clark and Thomas B. Noble have resigned as members of the Indianapolis Board of Health.——Dr. J. McLean Moulder, Kokomo, has been elected superintendent of the Methodist Episcopal Hospital, Indianapolis, vice Dr. Willard T. Graham, resigned, to accept a similar position in the Methodist Hospital, Des Moines, Ia.——Dr. Charles R. Crow, Indianapolis, is ill with locomotor ataxia.——Dr. J. W. Birchfield, Indianapolis, has been appointed assistant to the secretary of the State Board of Health.——Dr. O. J. Gronendyke, Newcastle, who has been seriously ill with erysipelas, is reported to be convalescent.——Dr. J. W. Patterson, Fairmount, is reported to be seriously ill with rheumatism.——Dr. S. G. Rogers, Darlington, is reported to be critically ill.——Dr. W. M. Bramigk, Fort Wayne, recently fell heir to a legacy of $16,700 by the death of an uncle in Germany.——Dr. John S. Coffman, Muncie, who has been seriously ill with influenza, is reported to be convalescent.——Dr. T. R. Rice, Petersburg, was painfully injured in a runaway accident recently.——Dr. Brose S. Horne, Gas City, was seriously injured in a trolley car collision recently.

KENTUCKY

Ice Cream Must be Wrapped.—The health office of Louisville has decided to refuse permits to vendors of ice cream who do not wrap the ice cream in impervious paper.

Bids for Sanatorium.—Bids for the new building, to be erected on the grounds of Waverly Hill Sanatorium, near Louisville, have been received. The structure is to be of frame and stucco and will cost about $25,000.

New Home for Nurses.—A building permit has been issued for a home for nurses of the Jewish Hospital Association, to be erected on the lot adjoining the hospital, at a cost of $9,000. The building will be two stories in height and will contain twenty rooms, a reception room, office and recreation rooms.

Hookworm in Kentucky.—*Bulletin 8* of the State Board of Health of Kentucky just issued takes up the question of hookworm in Kentucky and is illustrated by a map which shows the twenty-five counties, chiefly in the southern and eastern portions of the state, which are infected. The bulletin is profusely illustrated, showing the individuals and families affected, the poor housing conditions and the common absence of privies. It also tells how the disease can be cured and prevent d.

LOUISIANA

New Officers.—Iberville Parish Medical Association, at White Castle: president, Dr. A. A. Landry; secretary, Dr. Roman D. Martinez.——Calcasieu Parish Medical Society, at Lake Charles: president, Dr. H. L. Sanders, Westlake; secretary-treasurer, Dr. Van Glenn Yeager, Lake Charles.——East Feliciana Parish Medical Association, at Clinton: president, Dr. W. D. Wall, Slaughter; secretary-treasurer, Dr. R. P. Jones, Clinton.——Natchitoches-Red River Bi-Parish Medical Society, at Coushatta: president, Dr. W. F. Sibley, Victoria; secretary-treasurer, Dr. E. W. Breazeale, Campti.

State Society Meeting.—The thirty-third annual meeting of the Louisiana State Medical Society was held in New Orleans, April 23-25, under the presidency of Dr. R. O. Simmons, Alexandria. The following officers were elected: president, Dr. B. A. Ledbetter, New Orleans; vice-presidents, Drs. G. C. Chandler, Shreveport; George S. Bel, New Orleans, and J. L. Adams, Monroe; secretary, Dr. Joseph D. Martin, New Orleans; treasurer, Dr. Maurice J. Gelpi, New Orleans; delegate to the American Medical Association, Dr. Charles L. Chassaignac, New Orleans, and alternate, Dr. Joseph D. Martin, New Orleans. Baton Rouge was selected as the place of meeting for 1913.

Personal.—Dr. L. H. Jastremski, Houma, has been elected president of the Ice Manufacturers of Louisiana.——Surgeon J. H. White, U.S.P.H. and M.-H. Service, returned to New Orleans, April 8, after a three weeks' tour of Central American ports.——Dr. B. C. Fry has resigned as president of the Jennings Board of Health.——Dr. Ernest S. Lewis, senior professor in Tulane University, celebrated the fiftieth anniversary of his entrance into practice of medicine last month.——Dr. Emmet A. Welsh has succeeded Dr. Arthur A. Herold as pathologist of the Shreveport State Charity Hospital.——Dr. Oscar Dowling has been suffering with an abscess of the nasal cavity and was obliged to undergo operation April 6, and this prevented him from presiding at the health conference of the Southern Commercial Congress at Nashville.

MARYLAND

New Officers.—Cecil County Medical Society: president, Dr. H. Arthur Mitchell; secretary-treasurer, Dr. Howard Bratton, both of Elkton.

Directors Entertain Consulting Staff.—The directors of the Havre-de-Grace Hospital entertained the consulting staff and physicians of Harford County with a baked shad dinner, April 23.

Personal.—Dr. J. L. Mann, Cumberland, who was operated on for appendicitis in St. Leo's Hospital, is reported to be progressing favorably.——Dr. Marshall B. West, Catonsville, sanitary officer of the First District of Baltimore County, is reported to be ill with pneumonia.——Dr. T. J. Conrey, Chesapeake City, has been appointed secretary of the Cecil County Board of Health.

Saccharin an Adulteration.—The State Board of Health has announced that after May 1 it will regard as adulterated any foods containing saccharin which are manufactured or offered for sale in Maryland, but substances containing saccharin and plainly labeled to show that they are intended for use in sickness are not affected by the prohibition. They come under the designation of "drugs."

Annual Meeting of Faculty.—The Medical and Chirurgical Faculty of Maryland ,held its one hundred and fourteenth annual meeting in Baltimore, April 23-25.——The State Board

V. 5
1912

of Medical Examiners announced that in future no candidate would be permitted to take the state examination unless he could present a diploma from a high school.——The success of the new orchestra, headed by Dr. Charles F. Nolen, was complete and the chorus also sang well. The orchestra consists of sixteen pieces and the chorus of nineteen, under the direction of Dr. B. Merrill Hopkinson.——Dr. Harry Friedenwald presented the John M. T. Finney fund of $10,000 for the advancement of surgery, which was accepted by the faculty on the terms imposed by the donors, namely, that it is to be a permanent fund and in the hands of a committee who are to have charge of the purchase of books, arrangements of lectures, etc. The committee elected consists of Drs. J. M. H. Rowland, J. C. Bloodgood, S. T. Earle, W. W. Russell and Harry Friedenwald.——On behalf of friends, Dr. William H. Welch presented to the society an oil painting of Dr. Eugene F. Cordell, past president.——The following officers were elected: president, Dr. A. C. Harrison, Baltimore; vice-presidents, Drs. C. F. Davidson, Easton; J. Staige Davis, Baltimore, and E. B. Claybrook, Cumberland; councilors, Drs. J. S. Bowen, Mount Washington; P. Wroth, Hagerstown; David Streett, Baltimore, and Guy Steele, Cambridge; secretary, Dr. John Ruhräh, Baltimore; treasurer, Dr. William S. Gardner, Baltimore; trustees, Drs. J. W. Chambers, Baltimore, and M. L. Todd, Baltimore; delegate to the American Medical Association, Dr. Hugh H. Young, Baltimore; alternate, Dr. W. R. Stokes, and members of the state examining board, Drs. Herbert Harlan, Baltimore, and Franklin B. Smith, Frederick.

Baltimore

Personal.—The resignation of Dr. Ira Remsen as president of Johns Hopkins University was formally accepted, April 21.——Drs. J. Whitridge Williams and A. G. Rytina have been appointed members of the City Board of Charities.——Dr. Howard E. Harmon, a member of the surgical staff of Mercy Hospital, was operated on in that institution, April 23, for appendicitis.

MICHIGAN

Leper in Bay City.—Dr. A. S. Warthin of the pathologic department of the University of Michigan, after examination, has reported that Herman Hirschfield of Bay City, who is being held as a leprosy suspect at Centerville, Ia., is suffering from leprosy.

Clean-Up Day.—Governor Osborn has designated May 15 as public health and clean-up day in Michigan and the State Board of Health requests that this day be made a day of general cleaning up of unsanitary surroundings, and the establishment of sanitary and healthful conditions.

State Health Officers to Meet.—At a meeting held in Detroit the first week in April of the officers of the Michigan Health Officers' Association, which was informally organized in January last, it was decided to hold a meeting for formal organization May 22 and 23 at Ann Arbor, at which the new constitution and by-laws will be presented and acted on, and permanent officers will be elected.

The Commission Question.—At a meeting of the Detroit Academy of Medicine, April 23, a resolution was unanimously adopted setting forth that Article VI Section 4 of the Principles of Ethics, which refers to payment of commissions, be approved by the Detroit Academy of Medicine and that any member convicted of this offense before the board of directors be expelled from membership.

Personal.—Charles E. Marshall, Ph.D., professor of bacteriology and hygiene in the Michigan State Agricultural College, has accepted the directorship of the graduate school and professorship of microbiology at the Massachusetts Agricultural College.——Dr. William H. Deerhake of the Michigan State Soldiers' Home has been appointed a member of the medical staff of the Soldiers' Home, Dayton, O.——Dr. Jeanette Brigham has been appointed health officer of Howell——Dr. William F. Breakey, Ann Arbor, for forty-four years a member of the medical faculty of the University of Michigan, resigned April 25.——Dr. Russell P. Wixom, Detroit, is reported to be ill with heart disease at his home.——Dr. M. P. Fenelon, Escanaba, is reported to be seriously ill at his home.——Dr. Roland F. Webb, Grand Rapids, was seriously bruised and suffered a nervous shock in a collision between his automobile and a Pere Marquette train.——Dr. S. S. Lee, chief physician of the Osceola Mine, Calumet, has resigned and will practice in Lowell.—Dr. L. A. Roller has been reappointed a member of the Grand Rapids Board of Health.

MISSISSIPPI

Tri-County Society Organized.—The Tri-County (George, Greene and Perry) Medical Association met at Lucedale for organization March 13 and elected Dr. W. D. Ratliff, Lucedale, president, and Dr. J. E. Green, McLain, secretary-treasurer.

Bettter Sanitary Conditions Demanded.—The Railroad Commission has cited every railway doing business in Mississippi to appear before the commission, May 7, and show cause why the windows of every passenger coach should not be screened; why sanitary closets should not be built at every stopping-place where there is no sewerage system, and why those located in towns with a sewerage system should not be kept in sanitary order.

Personal.—Dr. John S. Ewing has succeeded Dr. B. B. Martin, resigned, as city physician of Vicksburg.——The home of Dr. C. L. Bufkin, near Columbia, was destroyed by fire, March 24.——Dr. K. T. Klein has been appointed house surgeon of the Matty Hersee Hospital, Meridian.——Dr. B. B. Martin assumed charge of the State Charity Hospital, Vicksburg, March 24, relieving Dr. S. W. Johnston, who will reenter private practice.——The four-story brick building in Aberdeen, belonging to Dr. J. W. Eckford, was burned to the ground, March 15. Dr. Eckford loses $10,000, and Dr. W. M. Paine, $2,000.

NEW JERSEY

Attending Staff Appointed.—At the annual meeting of the Camden County Medical Society, April 22, the following attending staff for the Camden City Dispensary were appointed: medical and surgical, Drs. W. H. Pratt, E. W. Rosell, H. F. Rose, M. M. Osmun, H. F. Palm, E. M. Richardson and H. I. Goldstein; gynecology, Dr. E. M. Richardson; nose, throat and ear, Drs. H. H. Sherk and H. F. Rose; district physicians, Dr. H. F. Palm and W. H. Pratt; microscopist, Dr. L. B. Hirst.

New Officers.—Camden County Medical Society, at Delair, April 22: president, Dr. John K. Bennett, Gloucester City; secretary, Dr. Daniel Strock, Camden.——Union County District Medical Society, at Elizabeth: president, Dr. Charles H. Schlichter; secretary, Dr. Milton A. Shangle, both of Elizabeth.——Cumberland County Medical Society, at Millville: president, Dr. John W. Wade; secretary, Dr. H. Garrett Miller, both of Millville.——Passaic County Medical Society, at Paterson: president, Dr. Robert M. Curts; secretary, Dr. Charles R. Mitchell, both of Paterson.

Personal.—Dr. R. C. Purnell Truitt, for two years a member of the staff of the New Jersey State Hospital, Trenton, has been appointed chief resident physician of the Hospital for the Insane, Bayview, succeeding Dr. H. D. Purdum, Sykesville.——Dr. and Mrs. W. H. Nafis, Trenton, sail for Europe this month.——Dr. James T. Wrightson, Newark, has been appointed by Dr. Herman C. H. Herold, president of the Board of Health, as a member of the special committee to act with the common council in designing the proposed central public health building at Newark.

Preventorium Opened.—The Tuberculosis Preventorium for Children, at Farmingdale, was opened April 25. The original site for the institution was in Lakewood, but after the institution had been opened, opposition developed to the presence of an institution of that kind in Lakewood and its location was changed to Farmingdale, where 170 acres of woodland and farm property had been donated. The idea of the institution is to help to save the growing generation by attacking tuberculosis early and so srengthening the body that it may, resist the development and spread of the disease. At an outlay of $150,000 the institution has been built and equipped and will care for 172 children at a time, or about 600 per annum, as the average stay of the individual is from three to four months. The children are placed in simple, attractive open camps, no discrimination is made as to race or creed and the care and treatment is absolutely free. Records are kept and a follow-up system is carried on.

NEW YORK

Chairmen of State Society Committees.—At the meeting of the Medical Society of the State of New York, the following chairmen of committees were appointed: scientific work, Dr. Thomas J. Harris, New York City; legislation, Dr. R. P. Bush, Horse Heads; public health, Dr. J. M. Van Cott, Brooklyn, and arrangements, Dr. W. T. Mulligan, Rochester.

Tuberculosis Notes.—Camp Healthmore near Utica was opened May 1. The rule that only incipient cases be admitted is to be strictly observed and the executive committee from the camp will consist of Drs. F. D. Crim, T. C. Gifford, L. B. Amsbry and F. T. Owens.——Sunny Crest Hospital, the municipal tuberculosis sanatorium of Auburn, has opened and on May 1 there were fifteen patients in the building.

Working of the Tuberculosis Law.—The State Department of Health has appointed Dr. C. S. Prest of Waterford a special representative to visit the various cities of the state and investigate the working of the tuberculosis law. He will not only ascertain the tuberculosis situation in each locality, but what proportion of cases are being reported to the health authorities, and whether other provisions of the tuberculosis law are being carried out and what organized efforts are being made to control the disease. He will also suggest methods by which the efficiency of the work being done may be increased.

Personal.—Dr. W. C. Roser, Northwestern, was struck in the eye by an iron bar, April 21, and so injured that the removal of the eye was necessary.——Dr. Chester Waterman, Ogdensburg, has been appointed second assistant physician at the St. Lawrence State Hospital.——Dr. O. Howard Cobb, West Haverstraw, has succeeded Dr. James S. Carson as superintendent of the State Institution for Feeble-Minded Children, Syracuse.——Dr. D. V. Still, Johnstown, is reported to be seriously ill in Nathan Littauer Hospital, Gloversville, with uremia.——Dr. Frederick C. Conway has been appointed city physician of Albany, vice Dr. Joseph M. Blatner.——Dr. George G. Lempe has been elected president of the board of trustees of the German Hospital Association, Albany.——Dr. E. H. Bullock, Syracuse, who has been seriously ill with pneumonia, is improving.

The Insane Alien Problem.—Governor Dix has appointed Dr. Spencer Dawes to investigate the insane aliens in this state. This is in response to the plea of the Lunacy Commission of the State of New York that the laws regarding the deportation of the criminal insane be investigated. As has been stated before, the alien insane in the institutions of the state number about 75 per cent. of the total while the alien population is estimated at about 25 per cent. Under the present laws, which the Commission in Lunacy maintains are defective, if it can be proved, within three years of his entry, that an alien had insane tendencies before he entered this country, he can be deported. A board appointed in 1904 succeeded in having 3,718 deported. It is thought that Attorney General Wickersham's decision in the early part of the year will greatly limit the power of the board. This decision maintained that the board was acting in its judgments regarding certain forms of insanity on a medical opinion, and not on a fact, and it is feared that this will greatly nullify the power of the board. Dr. Dawes after making an investigation is to report and to suggest legislation to relieve the situation.

Buffalo

Medical Women to Meet in Buffalo.—The annual meeting of the Women's Medical Society of New York State will be held in Buffalo, May 10, under the presidency of Dr. Grace Peckham-Murray.

Health Department Downtown.—The offices of the Department of Health have been removed from Fifty-Fifth Street and Sixth Avenue to the new building at Walker and Center Streets, Buffalo.

Sanitary Measures for Street Cars.—Under an order from the health commissioner and superintendent of police, smoking on trolley car platforms was discontinued on and after Sunday, April 21.

West Farm Site Selected.—Mayor Fuhrmann has approved the action of the common council favoring the purchase of the West farm site, a plot of eighty-one acres at Kensington Avenue and Grider Street, as a site for a hospital for advanced cases of tuberculosis.

Bids for New Hospital.—Dr. Roswell Park, chairman of the board of trustees of the State Institute for the Investigation of Malignant Diseases, formerly the Gratwick Laboratory, Buffalo, has received bids for the construction of a hospital to be operated in connection with that institution. The bids varied from $77,113 to $65,219. The building is to be of fireproof construction and four stories in height.

New York City

Memorial Services.—The Medical Society of the County of Kings held special services in the Library Building, April 21, in memory of the members who had died since January 1, 1911.

Personal.—Dr. Thomas Addis Emmet, the venerable gynecologist and collector of Americana, is to live on the site of his old home in Madison Avenue, on the sixteenth floor of a new building which he is erecting there.——Dr. A. C. Carpenter was seriously injured at his summer home near Port Jervis, April 24, by a circular saw.

New Dispensary Opened.—The Bronx Dispensary, the basis of the first hospital for that borough, was opened April 20 at the new Dispensary Building, 1385 Fulton Avenue. The dispensary at present occupies a frame building of twenty rooms and is divided in sixteen departments, including a department in dentistry, and this department with an emergency hospital will be open day and night. At the opening exercises, April 21, addresses were made by Dr. Abraham Jacobi and others.

Sanitation in Earlier Times.—The March *Bulletin of the New York Department of Health* contains an interesting history of sanitation in that city and describes the evolution of the Health Department. From this it may be learned that the first sanitary law passed in 1784 in the state and city was a quarantine act giving the governor power to appoint a physician to inspect all vessels. In 1795 there was an outbreak of yellow fever and a more serious one in 1798 when 2,086 persons out of a population of 55,000 died of the disease. The first city Board of Health was appointed in 1827 and one peculiar feature of all the health laws was that the board's discretion and opinion were always supreme, even above courts, where matters pertaining to health were concerned. When the city first appropriated $100 for street cleaning it was regarded as an outrageous waste of public funds. Even as recently as 1866 there was no provision for the removal of garbage or ashes; there were 20,000 people living in cellars, showing that the tenement problem was as acute then as now; there was a death rate of 30.30 per 1,000, while in 1911 it was 15.15. There were few sewers, many cesspools and many stables; cows were kept in ill-ventilated stables and the milk supply was perniciously unhealthy; slaughter houses and distilleries still further added to the unsanitary condition. *The Bulletin* then describes the activities of the Health Department at the present time and concludes that no one need regret the passing of the "good old days."

OHIO

New Officers.—Morrow County Medical Society, at Mount Gilead, April 10: president, Dr. J. C. McCormick, Mt. Gilead; secretary, Dr. J. H. Jackson, Edison.

The Coming State Society Meeting.—Arrangements have been practically completed for the annual meeting of the Ohio State Medical Association to be held in the Memorial Building, Dayton, O., May 7-9, under the presidency of Dr. Horace Bonner, Dayton.

Hospital Fund Grows.—The St. Elizabeth Hospital Association, Youngstown, on the third day of its campaign, had obtained subscriptions amounting to $61,129.12 of the $100,000 which it desires to secure. The Mahoning Valley Medical Society, at its meeting, April 16, officially endorsed the campaign and the charity for which it is being conducted.

Personal.—Dr. George W. Crile, Cleveland, has been elected a member of the American Philosophical Society.——Dr. W. H. Lewis, for thirteen years superintendent of the Protestant Hospital, Columbus, has resigned, to take effect June 1.——Dr. H. E. Palmer, Dayton, is seriously ill with septicemia, due to an operation wound.——Dr. W. W. Smith, Portsmouth, who underwent operation in Christ Hospital, Cincinnati, in March, has recovered and resumed practice.——Dr. M. S. Clark, Youngstown, announces that he will retire from active practice about June 1 and will move to Mentor.

Memorial to First Cesarean Operator.—On April 22, the monument in memory of Dr. John L. Richmond, Newtown, who performed the first cesarean section of record in the United States, was dedicated. Dr. E. Gustav Zinke, Cincinnati, was master of ceremonies and addresses were made by Dr. T. D. Meguire, Cincinnati, president of the McDowell Medical Society; Prof. Charles R. Henderson, Chicago, on "Progress in Saving Infant Life Since my Grandfather's Time;" Dr. Henry Schwarz, St. Louis, on "The Porro Operation and the Revival of the Classical Cesarean Section;" Dr. A. B. Davis, New York City, on "Modern Methods in Cesarean Section;" Dr. L. S. McMurtry, Louisville, on "Richmond and McDowell;" Dr. Miles F. Porter, Ft. Wayne, Ind., on "The Early Pioneers in Abdominal Surgery;" Dr. O. G. Pfaff, Indianapolis, on "The Obstetrician of To-day," and Dr. Charles A. L. Reed, Cincinnati, on "More Recent Celebrities." The monument was unveiled by Professor Henderson.

V. 5
1912

Cincinnati

Detention Ward to be Established.—The City Hospital Commission has granted the request of Dr. C. S. Rockhill for the establishment of a detention ward at the tuberculosis sanatorium. The ward will be established in one of the old buildings.

Personal.—Dr. O. V. Huffman has resigned his several positions at the Cincinnati City Hospital and in the Ohio Miami Medical College to accept an appointment in the department of clinical pathology of the College of Physicians and Surgeons, New York City.——Drs. W. A. Lucas, E. D. Allgaier, G. Mombach, J. S. Caldwell and Starr Ford have been appointed members of the City Hospital laboratory staff.

PENNSYLVANIA

Memorial Ward Presented to Hospital.—The Houston Memorial Ward recently completed was formally presented to the board of managers of the Chester Hospital, April 10. The building is intended for the care and treatment of children up to the age of twelve years, is fire-proof, octagonal in shape, and connected with the main institution by an overhead solarium. The basement will be utilized as a lecture room and class room for nurses and as a meeting place for the Delaware County Medical Society.

Additions to Hospitals.—The new laboratory recently installed on the fourth floor of the Scranton State Hospital cost about $8,000. Adjoining the general chemical room is a smaller room used as a library, an office for Dr. J. D. Wilson, the pathologist and bacteriologist in charge, and for bacteriologic work. It also has an animal room where guinea pigs, rabbits and other animals can be kept.——Work was begun April 18 on the three-story addition to the hospital of the Woman's Medical College, Pittsburgh. The building is to be of brick and steel, fire-proof, and will cost $50,000.

Brown Estate Condemned.—Two experts, at the invitation of the Citizens' Committee on Municipal Charities, inspected the Alexander Brown estate and condemned it as a site for the Home of the Feeble-Minded, as there is accommodation for not more than 300 and the city must prepare to provide for 1,400 and have room besides for gardening and out-door work for these inmates. On April 16, a subcommittee met, reveiwed the report and approved the suggestion of Dr. Joseph S. Neff, director of the Department of Health and Charities, that the new institution be erected on the Worthington tract of the Byberry Farms, owned by the city.

Personal.—Dr. Smith Armor, Columbia, celebrated his eighty-eighth birthday anniversaary April 19.——Dr. J. R. Borland, Franklin, who was struck by a street car several weeks ago fracturing his leg, collar-bone and ribs, is reported to be convalescent.——The automobile of Dr. John N. Becker was stolen April 16, while he was making a call at the Reading Hospital.——Dr. A. B. Painter, Mill Hall, has been appointed a member of the medical staff of the Lock Haven Hospital. ——Dr. John Murphy, Loretto, who went south for his health several months ago, has returned home considerably improved. ——Dr. John M. Sheedy has been elected president of the Altoona Board of Health.——Dr. J. D. Graber, Royersford, has purchased the old homestead of the Late Dr. B. F. Dismant, Limerick Center, and will retire from active practice.

Philadelphia

Annual Banquet.—The Northern Medical Association of Philadelphia, now in the sixty-sixth year of its existence, held its annual banquet at the Hotel Majestic, April 30. Dr. William H. Welch, Baltimore, was the guest of honor.

Hospital News.—An additional building, containing a maternity ward, operating room, private rooms and dispensary was opened in connection with the Northwestern General Hospital, April 27, when a reception was given by the ladies' auxiliary.

Personal.—Dr. Joseph C. McCracken has just returned from China, where he has been in charge of the university's medical school in Canton.——Dr. Herman Trager, resident physician at the Mt. Sinai Hospital, was thrown from the hospital ambulance in a collision with a trolley on April 27, but escaped serious injury.

Doctors Qualify for City Service.—On April 26, the Civil Service Commission published the list of persons eligible for appointment as assistant medical inspectors in the Bureau of Health at a salary of $1,400 a year. Seventy-six qualified for the inspectorships, but only one woman qualified as supervising nurse at the Philadelphia Hospital for Contagious Diseases, with a salary of $1,200.

Eligible List for Blockley Interns.—The Civil Service Commission, on April 23, issued an eligible list of successful candidates for the position of intern at the Philadelphia General Hospital, embracing ninety names of recent graduates from the city medical schools. A senior of Jefferson Medical College headed the Civil Service list, the second place went to a senior of the Women's Medical College and the third place to the Medico-Chirurgical College.

SOUTH CAROLINA

New Officers.—Edgefield County Medical Association: president, Dr. George D. Walker, Johnston; secretary-treasurer, Dr. J. G. Edwards, Edgefield.

Object to License Fee.—The physicians of Rock Hill appeared in a body before the city council, April 3, and asked that they be relieved of the necessity of attending to charity cases, or that they be paid a salary equal to the special license tax of $15 imposed on them by the city.

Personal.—Dr. J. L. Woffard, Cherokee Springs, is reported to be critically ill at his home.——Dr. J. A. Faison, while making a professional call, April 6, was attacked with a knife by an insane negro and severely cut.——Dr. F. L. Potts, Spartansburg, has decided to close his private sanatorium.

Monument to Marion Sims.—The South Carolina Medical Association, at its annual meeting, decided to take active part in securing the necessary funds for the erection of a suitable monument, in memory of the late Dr. Marion Sims. A bill was passed by the legislature appropriating $5,000 for this purpose, provided an additional $5,000 was raised by the citizens of the state. The Sims memorial committee has decided to create a subcommittee in each of the forty-four counties of the state to solicit subscriptions for the $5,000 required.

TEXAS

State Association to Meet.—The State Medical Association of Texas will hold its forty-fourth annual meeting in Waco, May 7-9, under the presidency of Dr. J. H. McCracken, Mineral Wells.

Contagious Disease Hospital for Galveston.—A site for the new hospital for contagious diseases at Galveston has been selected on the northeast corner of the grounds of the John Sealy Hospital. An appropriation for $13,000 is available for this building and the plans proposed call for a concrete structure.

Personal.—Dr. Frank J. Hall, Dallas, has given $1,000 to the Young Women's Christian Association in memory of his mother, the late Mrs. Mattie A. Hall.——Dr. F. A. Pierce, Dallas, was given a dinner by his medical friends, April 17. Dr. Pierce has started for Europe.——Joe B. Wills has been appointed chief sanitary officer of Dallas.

Thank Military Surgeons.—At a special meeting of the San Antonio Board of Health, a resolution was passed tendering a vote of thanks to Colonel Charles G. Treat and the medical officers at Fort Sam Houston "for their prompt and efficient action in the care of the victims of the explosion of March 18, in which twenty-six citizens lost their lives and many were injured."

Will Have Medical Library.—Plans to open a library and medical headquarters were discussed at a recent meeting of the Dallas County Medical Society, and four rooms have been secured in the new Southwestern Life Building for these purposes. The new library will contain at the start about 200 medical periodicals and 1,000 medical publications. Dr. M. M. Smith is in charge of the library.

Sanatorium Notes.—The State Sanatorium, Carlsbad, is nearly completed and when finished will accommodate seventy-two patients.——Dr. C. D. Hudson, Waco, has secured an option on the old McClain Sanitarium and is remodeling the building on the site.——The Works Sanitarium, Brownsville, has been purchased by Dr. W. H. Lincoln, Wabasha, Minn., who will reopen the institution as soon as improvements are completed.

New Officers.—LaSalle-Frio Counties Medical Association, organized at Cotulla April 12: president, Dr. Glen Bartlett, Cotulla; vice-president, Dr. C. M. Hoch, Pearsall, and secretary-treasurer, Dr. R. L. Graham, Cotulla.——Northwest Texas Medical Association: president, Dr. Alf Irby, Weatherford; secretary-treasurer, Dr. A. D. Pattillo, Petrolia.——Denison Medical Society: president, Dr. A. V. Rutledge; secretary-treasurer, Dr. J. A. Rutledge.——Orange County Medical Society: president, Dr. S. W. Sholars; secretary, Dr. A. R. Sholars, both of Orange.——Lavaca County Medical Association: president, Dr. J. E. Lay, Hallettsville; secretary-treasurer, Dr. W. Shropshire, Yoakum.

GENERAL AND FOREIGN

Leper Colony to be Moved.—It is announced that the government proposes to transfer the leper colony of Guam to the Philippines, where the Island of Culion has already been assigned, and is in use as a leper colony.

National Tuberculosis Association Meeting.—The eighth annual meeting of the National Association for the Study and Prevention of Tuberculosis will be held in the new Willard Hotel, Washington, May 30-31, under the presidency of Dr. Mazyck P. Ravenel, Madison, Wis. The work of the association is conducted by the advisory council and in sociologic, pathologic and clinical sections.

Switzerland Introduces Compulsory Insurance Against Sickness.—The introduction of compulsory insurance against sickness and industrial accidents has been repeatedly voted down in Switzerland, but by a recent referendum vote it was finally adopted by a small majority. The cantons bordering on Germany and Austria voted for it, those bordering on France and Italy against it, confirming again the general trend of the Germanic peoples toward and of the Latin races against compulsory insurance of wage-earners.

Other Deaths Abroad.—Besides the deaths mentioned by our foreign correspondents are the following: A. Codivilla, professor of orthopedics at the University of Bologna and one of the leading orthopedists of Europe, died March 14.——L. M. Möller, professor of diseases of the skin and syphilis, at the Karolinska Medico Kirurgiska Institut at Stockholm, and author of various monographs on his specialty, died March 24, aged 55.——I. Svensson, for many years chief of the Sabbatsberg hospital at Stockholm and author of numerous works on rupture, diseases of the urinary apparatus and surgical subjects, died February 19, aged 72, after some years of retirement from active life.——William Francis Norman O'Laughlin, L.R.C.S., Ireland, 1870; L.K., Q. Coll. Phys, Ireland, 1871; senior surgeon of the White Star Line and chief surgeon of the steamship *Titanic;* one of the most genial of men and one of the oldest surgeons in the transatlantic service, well known and beloved by thousands of travelers; went down at his post of duty when the *Titanic* sank, April 15.

LONDON LETTER

(From Our Regular Correspondent)

LONDON, April 13, 1912.

A Medical Service Organized by the Profession

The deadlock between the government and the profession in reference to the medical benefits of the insurance act continues. No reply has been received to the ultimatum sent to the insurance commissioners by the British Medical Association (described in a previous letter to THE JOURNAL). In the meantime, the organization of the profession to resist the act continues. A scheme has been brought forward for the medical profession to organize a plan of medical service, to be administered by itself, free from the objectionable features of the present system of contract practice and of its extension under the act. At present, such a plan has been in successful operation for some time in a few towns, where complete unanimity of the profession in adhering to it has been secured. Thus the friendly societies there have no option but to accept the plan if they wish for contract practice. The council of the British Medical Association is issuing "private and confidential" documents on the subject for the consideration of the divisions of the association. These documents embody the outline of an organization which will come into existence if the insurance commissioners fail to come to terms with the profession. The object of the new organization is declared to be the "provision of medical attendance and medicine for persons unable to pay the ordinary medical charges in the usual manner." Any physician whose professional conduct is in conformity with the rules for the time in force of the division of the British Medical Association in his district may become a member of the service on signing an undertaking to abide by these rules. Members will be of two grades: "honorary," who, while not taking patients under the scheme, agree to conform to its regulations, and "acting," who will work under it. The subscribers are to be persons not earning more than a certain sum, as yet undetermined. They will be medically examined on entry and will pay in advance subscriptions proportionate to their age and means, regard being had *(inter alia)* to the number of children and other dependents. They will have to pay an additional fee for child birth. Subscribers will have the right to select their physician, but capricious changes will be avoided by a condition that they must not ask to be transferred to another physician oftener than once a year. They are to receive a card of instruction and will be entitled to: (1) medical attendance and surgical treatment at either the physician's office or the dispensary of the service; (2) when necessary, medical and surgical treatment at their homes, other than night calls and special visits to be defined; (3) medicines and first dressings for wounds and injuries.

Pharmacists and Copies of Prescriptions

The passing on, by patients, of prescriptions written for them to friends, with the idea that what has benefited them is likely to benefit others whom they believe to be similarly affected, has always been condemned by the profession as injurious to its interests as well as to those of the public. At a meeting of the Western Pharmacists of London, at which a number of physicians were present by invitation, Mr. J. D. Marshall opened a discussion on the practice of supplying patients with copies of their prescriptions. He read a letter from Dr. Mitchell Bruce, who wrote that such copies were usually required in order that the patient might hand them to his friends and that therefore the practice encouraged quackery, or the suiting of a disease to a remedy instead of a remedy to a disease. The use of a prescription by any person other than the one for whom it was written he considered reprehensible. Mr. Marshall declared that he refused to give copies whenever possible. There were circumstances in which copies might legitimately be given, but, broadly speaking, the practice was not to be encouraged, first, in the interest of the patient and his friends, and second, in the interests of the physician. The chief offenders in asking for copies were ladies who liked to pose as amateur doctors and to dispense among their friends the medicine which had done them good. A frequent excuse for such applications was a change of physician. It was desired to show the second physician what the first one had given. Mr. Marshall's practice was never to give such copy unless the first physician gave his permission. He thought that physicians unwittingly assisted in the "wholesaling" of prescriptions by allowing the use of compressed forms of medications and made-up drugs. One of the physicians present said that the question resolved itself into a matter of copyright. So long as the physicians in this country, unlike their American colleagues, had no copyright in their prescriptions, they were powerless to protect themselves. [The implication with regard to prescriptions in America is, of course, erroneous. It would be impracticable for physicians to "copyright" prescriptions. As to the ownership of prescriptions, various courts in this country have rendered conflicting decisions.—ED.] He intended to have a printed notice on his prescription papers to the following effect: "In the interests of the public I desire that no copy of this prescription shall be given by the pharmacists." Dr. Phineas Abraham (dermatologist) thought the chief sufferers from the practice were first, physicians, and second, the patients who frequently did themselves injury. Thus a woman who had noticed the beneficial effect of an ointment which he prescribed for her husband's eczema had applied it liberally on herself, producing severe dermatitis.

PARIS LETTER

(From Our Regular Correspondent)

PARIS, April 12, 1912.

Sanitary Condition of the French Army

In reply to the sensational article of Dr. Binet-Sanglé on morbidity in the French army (THE JOURNAL, March 30, 1912, p. 949) a military physician, Dr. Noel, has just published an article in the *Bulletin Médical*, disagreeing not with Dr. Binet-Sanglé's figures but with his conclusions. Dr. Noel says that these figures are based solely on diseases of relatively slight morbidity, while all the other diseases, especially those which are often fatal, are passed by without comment. Such figures, without any corresponding data in regard to death, dismissal, etc., give a very inaccurate idea of the soldiers' health. The mortality of the army has decreased during the last decade from 5.73 per thousand in 1900 to 3.95 per thousand in 1909. Dr. Noel believes that the frequency of contagious diseases in the French army has been explained by a condition of low resistance in our race. What seems to confirm this theory is that the diseases which have increased in frequency, apart from scarlet fever, mumps, measles, meningitis and the anginas, are those which indicate organic weakness, for example, heart disease, which increased from 1,167 in 1900 to 2,011 in 1909, and hernias, which increased from 2.9 per thousand in 1901 to 8.6 per thousand in 1909. Mental diseases have increased from 1.6 per thousand in 1900 to 4.9 per thousand in 1909.

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1912

Salvarsan Does Not Prevent the Development of Measles

Certain organic compounds of arsenic, salvarsan in particular, while exercising a favorable influence on the diseases due to spirilla, are inefficacious in most microbic diseases. Dr. A. B. Marfan, professor of therapeutics at the Faculté de médecine de Paris, recently read, at the last meeting of the Société de biologie, a paper by himself and Dr. Lagane on a case which indicates that salvarsan has no influence on the pathogenic agent in measles. A child of 7 years entered the hôpital des Enfants-Malades, Feb. 22, 1912, having already received several mercury treatments for syphilitic pseudoparalysis and the Wassermann reaction was positive. March 2 and 11 the patient received injections of salvarsan; and March 15 had fever and catarrh of respiratory passages and March 18 had typical measles eruptions. The disease had been contracted two or three days after the first injection of salvarsan; the second injection was made during the incubation of the disease. The injection of salvarsan, therefore, had no influence on the development of the measles.

BERLIN LETTER

(From Our Regular Correspondent)

BERLIN, April 4, 1912.

Headquarters for Reprints

Some time ago Oberstabsarzt (higher staff surgeon) D. Berger, of Berlin, founded medical literary headquarters. This institution serves the purpose of relieving physicians of the trouble of collecting literature for scientific articles and also furnishes scientific treatises on specified subjects. For this purpose Berger has engaged twenty physicians as collaborators. In the last number of *Deutsche medizinische Wochenschrift*, Berger makes the proposal for the foundation of a more extensive institute which shall facilitate medical publication. He adopts an idea of Professor Boas of this city which contemplates the centralization of the reprints of medical articles. Boas declares that it is extremely necessary, in view of the present extension of medical literature, to establish headquarters for furnishing and dealing in special reprints, by which the sending out of abstracts should be organized so that at any time any abstract desired by any one interested, could be furnished at a moderate price. The present method of sending reprints to friends, etc., does not correspond with modern requirements and it is quite incomplete. Berger proposes to add this organization to his medico-literary headquarters. For the organization he proposes the following plan: All physicians joining this special press headquarters are to unite in an organization, the membership of which shall be secured by yearly payment of 82.50 (10 marks). From these contributions the expense of the management will be provided. Every physician joining assumes the obligation to send to this headquarters all his extra reprints, but at least two reprints of each of his articles published in periodical literature. He can send all of his copies direct to the headquarters and provide where these shall be sent in his name. The expense of sending them out shall be borne by the headquarters. Every member has the right to require as large a number of reprints as he wishes, but only one reprint of each article. By this organization Berger believes that physicians will be relieved from the trouble of sending out their reprints and in addition a headquarters will be established at which reprints can be found that would otherwise prove very hard to obtain. Physicians will be relieved from accumulating dusty stores of reprints and the expense of reprints will be reduced. From the reprints sent by the members, which might be supplemented by purchase, gradually a library of reprints will be built up which will constitute a valuable supplement to ordinary libraries. It is evidently important to secure as extensive a representation of foreign literature as possible, and Berger holds that it is desirable to secure the establishment of parallel institutions in the principal foreign cities. That such an institution would be practical and would facilitate scientific investigation, I also believe beyond doubt. But the question is whether the idea will possess sufficient vitality to rouse the interest of physicians enough for them to unite in such an organization.

Innovations in the Augusta-Victoria Infant Welfare Institution

In the Augusta-Victoria House for combating infant mortality in the German empire, a number of alterations have been made during the last year. The number of beds has been increased from 60 to 150. In the necessary rebuilding, provision has been made for avoiding the spread of infection and contagion from bed to bed. As a consequence the system of Heubner's stalls has been introduced in some wards. This system consists in separating each bed from the others by glass walls, so that each child lies in a small isolation chamber of its own, and yet can see what is going on in the ward. While the nursing service is impeded by this sort of care for infants, yet it is indisputably the best plan for attaining a satisfactory success in nutrition. Children suspected of having infectious diseases are completely separated in a special isolation building. Another important feature is the installation of twenty-five private first and second-class beds for infants. Furthermore a special water and electric plant and a small stable for experimental animals on which metabolism and growth are to be studied has been erected. For the important purpose of instructing physicians, medical assistants and the public, the house has organized a series of lecture courses. For mothers and young girls a mothers' school, lasting a month, is held four times yearly. As a matter of experiment, an agreement was made with the Elizabeth girls' school by which the pupils are to be given a four-weeks' course of training in the care of infants. Further courses were established for the Berlin midwife association. The central committee for medical postgraduate courses and the seminary for social medicine together held successful courses of lectures for physicians in the Augusta-Victoria House. A primer on the care of infants is being prepared for the common schools. A conference was held January 18 on the training of servants for the care of infants in institutions and families. The Augusta-Victoria House will soon build its own nurses' training school, so that yearly fifty nurses can be trained. April 1 a museum of appliances for the care of infants will be opened in the house for the use of the community. The chief purpose of the institution, namely, the scientific investigation of infant nutrition and the physiology of infancy requires an increase in the medical service. The provision of new positions for assistants and the establishment of the office of department superintendent for hygiene and bacteriology are contemplated. Also the appointment of a director for the chemical laboratory appears to be necessary. The institution is located in a suburb of Berlin and its official title is the Auguste-Viktoria Haus zur Bekämpfung der Säuglingssterblichkeit im Deutschen Reich.

Influence of Alcohol on Criminality

Bavaria is the first of the German states to institute a systematic investigation of the relations between alcoholism and criminality by collecting statistics in regard to how many of the cases in which convictions were obtained in 1910, for crime or violations of the law of the realm, were to be referred to intoxication or to the habitual use of alcohol. In 1910, 8,864 persons were legally convicted, in whom the criminal offense was referable to the use of alcohol, and among them were 190 chronic alcoholics. Those persons who were drunk or under the influence of alcohol constituted at least 14 per cent. of all those convicted. Dangerous bodily injuries are to be noted as a special crime of drinkers. Among the 10,042 criminal offenses, which the 8,864 convicted persons committed under the influence of liquor, 5,006, almost exactly half, were dangerous bodily injuries. Every third such offense is to be referred to alcoholism.

The small proportion of such crimes as larceny, etc., under the influence of alcohol, is striking. The female sex is represented among the criminals from drunkenness only to a slight extent (28), and also youth with 166 or 1.9 per cent. Drunkenness, as a ground for exemption from punishment, was admitted in 150 cases. The geographic distribution of the alcoholic criminals shows great variations. Generally crimes due to alcohol are much more frequent in the country and in the small towns than in the large cities.

Canned Meats

Dr. Mayer, the head of the department for hygiene of the Royal Academy for Army Surgeons at Munich, has made thorough investigations of the injury done by canned meats. He reaches the following conclusions: Canned meats prepared according to modern methods form an unobjectionable food material, both for well and sick. Even in private industry, doubled tinned strong plates should be used because such plates readily show bulging and the tin coating undergoes the least change. A single heating at a temperature of 117 C. in double plated cans by steam under pressure for forty-five minutes and subsequent exposures to a temperature of 120.5 C. for ten minutes seem to secure the sterilization of preserved meats and to avoid the change in the flavor which results from cooking at the temperature of 120.5 C. Only pronounced bulging

is a sure sign of bacterial decomposition. Elastic or impressible tops and bottoms occur with the formation of gas, both from bacterial and from pure chemical sources whose contents show no signs of decomposition, yet may be bacterially infected, but this is a rare occurrence. In sterilized and properly closed, air-tight cans only the spores of bacteria, but not the vegetative forms, can survive the sterilization, and this only when the inside of the can has not reached 116 C. For safe sterilization and for prevention of corrosion of the tin in the cans and of resulting deterioration in the flavor of the meat, the air must be carefully excluded from the cans. For oiling the cans to prevent rust, oils or fat which have little tendency to become rancid should be used. The addition of spices and vegetables and the introduction of pickled or smoked meat should be carefully avoided for preserves which are to be kept many years without extensive change of the tin coating and of the flavor. For preserves with such additions, three years are the limit of time within which a metallic taste is not noticeable in the contents. The influence of the hardness of the water on the attack on the tin coating in the cans needs further investigation. Cans with slight bulging from gases should not be punctured to let out the gas and sterilized anew after soldering without first testing the contents for bacteria. It would be a desirable advance in technic to replace the tin coating in cans, with its corrosion and disagreeable effect on the flavor, by some other less easily affected coating. The ordinary varnishes are insufficient for the requirements of permanent preserves. Tin poisoning from canned meats cannot normally occur. A plainly legible label bearing the date of preparation should be placed on every can.

VIENNA LETTER

(From Our Regular Correspondent)

VIENNA, April 3, 1912.

The Quantity of Food Consumed in Vienna

In the course of the proceedings of the Congress of Food and Provisions, an interesting paper was read dealing with the quantities of foods required for various communities. Thus, for instance, the population of Vienna consumes daily 1,700,000 pints of milk and 7,000,000 pounds of loaves, rolls, white and brown bread and 800,000 eggs. The yearly consumption of meat was, in 1910, 280,000,000 pounds and 6,250,000 pounds of horse-meat besides! Over 13,000,000 pounds of poultry, an equal quantity of venison, and over 7,000,000 pounds of fish are sold at the market in Vienna. During the last ten years the consumption of meat has not increased at the same rate as the population; the relative quantity of meat per head has fallen by 2.5 per cent. while the sale of cereals and vegetables is very extensive and constantly increasing in relation to the increase of population.

The Centenary of Public Vaccination in Vienna

An interesting centenary was celebrated on March 25 when a hundred years had elapsed since the institution of public vaccination in this country. The text of the ordinance said that every physician and every head of a family was bound to report every case of small-pox coming to his knowledge. The authorities then could place a board on the house, saying that the disease was within. Eight weeks after the promulgation of the order, the public vaccinator would go from house to house and offer to vaccinate everybody free of charge. This should be repeated twice a year. If a person died from small-pox without being vaccinated, the names of the persons responsible for such conduct of the deceased or crippled persons (the parents, husband) should be made public in the daily papers, stating that by a punishable prejudice they allowed their relatives to become victims of a preventable malady and that they had violated their duties to their family and to the state. Citizenship must have been really patriarchal at that time, when the original ordinance was passed.

BUDAPEST LETTER

(From Our Occasional Correspondent)

BUDAPEST, April 14, 1912.

Annual Antialcohol Day in the Schools of Hungary

The minister of public instruction has lately ordered all the grade schools in Hungary to appoint one day in every year, on which day two hours shall be devoted to a lecture on the evils of alcohol. The minister has provided suitable texts for the convenience of lecturers. In order that the antialcohol day may have special significance, the minister ordered that day to be a holiday, thus to impress the subject still more effectually on the plastic minds of the children.

Compulsory Vaccination

Since the annexation of Bosnia and Herzegovina by Austria-Hungary, the minister of public hygiene has done much to raise the standard of public hygiene in the annexed states. The latest advance is the passing of the vaccination act providing for the compulsory vaccination of every child under 2 years of age and revaccination after the eighth year.

Radium Bed Under Budapest

Dr. Wesselsky, professor of chemistry at the Budapest university, surprised his audience at the annual meeting of the Balneological Society with a sensational discovery. He asserted that under Budapest there are vast radium strata, and that these are what impart the high temperature and healing virtues to the Budapest thermal springs. The eminent radiologist stated that, as the result of three years of investigations, he feels himself justified in announcing that the radium contained in the Budapest soil is of the finest quality, and can compete with the celebrated Joachimsthal radium. Wesselsky has found that the thermal springs of Buda are five or six times as rich in radium as the most celebrated foreign springs, and can be compared only with the Gastein, Baden and Ischia springs. According to him the water of the Buda springs contains 35 mg. of radium in every 10 liters of water.

Restrictions on Settlement of Doctors in Austria

The new medical practice act has been recently sent to the medical chambers for their discussion. The fourth paragraph of this act deals with the location of doctors in summer resorts and in larger towns, and is intended to introduce the *numerus clausus* system, by which the national political magistrate is authorized to designate the maximal number of practitioners for a five-year period, with the agreement of the respective local magistrates. It is to be hoped that this injurious provision against the locating of outsiders will be strongly objected to by the medical chambers.

Is Idiocy Curable?

The Hungarian medical papers report the sensational case of Dr. Payr, director of the Leipsic surgical clinic, who attended an idiotic child, on whom he performed an operation consisting of the implantation of a part of a normal thyroid gland in the child's kidney. The thyroid gland maintained its functional capacity in the new body, and within one month the child became regenerated and could be dismissed from the hospital entirely cured. Dr. Alapy, director of the surgical section at the pediatric clinic in Budapest, says that while the administration of thyroid gland to idiots and cretins is neither new nor altogether satisfactory, because the improvement realized is only temporary, Professor Payr's method promises lasting cure, inasmuch as the alien thyroid gland—if developing further in the body—produces itself the fluid which supplies the blood with that constituent the lack of which causes idiocy. This is not the first time that Professor Payr has attracted the attention of the scientific world. Before he left Hungary, while he was still assistant at Gratz, he transplanted different organs into animal and human subjects, with such success that the organs have maintained their functional activity.

Trachoma in Hungary

Although the government makes every effort to check the spread of trachoma by employing specialists in trachomatous districts, still the disease is appearing in new regions where formerly trachoma was unknown. In some districts in southern Hungary, there are so many trachoma cases that special schools with trachomatous teachers have had to be erected for trachomatous children. The number of soldiers who have to be dismissed from the army on account of trachoma has grown in recent years to such proportions that the minister of war has decided to form trachomatous regiments with trachomatous officers, because, if all the trachoma cases were further to be dismissed from the army, there would be serious deficiencies in the number of soldiers. Another advantage will be gained thereby. It sometimes happens that a soldier, weary of service, simply goes to a trachomatous friend and has the latter insert a penny under his eyelid. Then the soldier puts the infected penny under his own lid and rubs it well to get the disease; and in every instance he gets it. If trachoma is no longer a ground for exemption from service, the soldiers will not risk their eyes in this way.

Marriages

GEORGE HENRY FIELD, M.D., Coburg, Ont., to Miss Mary Gearing of Annapolis, Md., April 18.

ALBERT FREDERICK RUGER ANDRESEN, M.D., to Miss Margaret Regina Kane, both of Brooklyn, N. Y., April 25.

ARTHUR LIONEL PATCH, M.D., Somerset, Vt., to Miss Mary Amelia Dresser of Woonsocket, R. I., April 16.

FREDERICK L. BOGAN, M.D., to Miss Katherine Louise Spillane, both of Dorchester, Boston, April 17.

DENIS SEBASTIAN DOWNEY, M.D., to Miss Ethel Wadsworth, both of Chickasha, Okla., April 10.

THOMAS M. T. MCKENNAN, M.D., Pittsburgh, Pa., to Miss Eleanor E. Wallace of New Castle, Pa., April 30.

NICHOLAS H. PRUSCH, M.D. San Francisco, Cal., to Miss Grace Benton Dunnegan of Bolivar, Mo., April 4.

GEORGE B. GRADY, M.D., Watervliet, N. Y., to Miss Bertha Judge of Troy, N. Y., April 17.

JOHN FRANCIS MCCONNELL, M.D., to Miss Edith Doris Fowler, both of Colorado Springs, Colo., April 11.

Deaths

Samuel Oakley Vander Poel, M.D. College of Physicians and Surgeons, New York City, 1876; a member of the Medical Society of the State of New York and medical director of the New York Life Insurance Company; died at his home in New York City, April 22, from cerebral hemorrhage, aged 58. After Dr. Vander Poel's graduation and hospital service at Bellevue, he took postgraduate courses in Vienna, Heidelberg and Paris. He returned to Albany, his native city, in 1879 and practiced there until 1885, when he moved to New York City. Here he was in general practice until 1893, but paid especial attention to diseases of the nose and throat. He was appointed medical examiner of the New York Life Insurance Co. in 1883, chairman of the committee of review to determine value of substandard risks in 1893; consultant assistant medical director in 1894 and medical director four years later, serving in that capacity until the time of his death. His hospital service included membership on the attending staff of St. Peter's Hospital, Albany, and the Albany City Hospital; he was visiting physician for a time at Randall's Island and Charity Hospital and assistant surgeon to the Manhattan Eye and Ear Hospital and the throat department of the Vanderbilt Clinic. He was instructor for a time on theory and practice of medicine in Albany Medical College, which conferred on him the honorary degree of doctor of medicine.

Rawley White Martin, M.D. Bellevue Hospital Medical College, New York City, 1858; a member of the American Medical Association; Tri-State Medical Association of Carolinas and Virginia; Southern Surgical and Gynecological Association and Association of Surgeons of the Southern Railway; president of the Virginia State Board of Health and State Board of Medical Examiners; formerly president of the Medical Society of Virginia; a veteran of the Civil War in which he served until its close and in which, as commander of the Fifty-Third Virginia Infantry, attached to Armistead's Brigade of Pickett's division, he led his regiment in the famous charge on the third day at Gettysburg; died at his home in Lynchburg, April 20, from pneumonia, aged 76.

Louis Nelson, M.D. Harvard Medical School, 1904; a student at the Strasburg Pharmacologic Institute, from which he was graduated in 1907 and for a year thereafter assistant to Professor Schmidtberg, the bacteriologist; instructor in pharmacology in his alma mater; a member of the American Therapeutic Society; a research worker of great promise; died in the Eliot Hospital, Boston, April 14, from enterocolitis, due to inoculation with the gas bacillus, aged 33. This is the third death within a year of research workers connected with Harvard Medical School.

Daniel Kimball Pearsons, M.D. Vermont Medical College, Woodstock, 1842; a practitioner of Chicopee, Mass., until 1857 and thereafter a resident of Illinois; who had devoted the last years of his life to practical philanthropy and is said to have given more than $6,000,000 to collegiate institutions; in 1875 a member of the Common Council of Chicago; died at Hinsdale Sanitarium, April 27, from pneumonia, aged 92.

Norman Riley Cornell, M.D. Geneva (N. Y.) Medical College, 1847; since 1850 a practitioner of Knoxville, Ia.; a charter member and once president of the Marion County Medical Society and for many years a member of the Iowa State Medical Society; assistant surgeon of the Twenty-Third Iowa Volunteer Infantry and surgeon of the Fortieth Iowa Volunteer Infantry during the Civil War; for many years surgeon to the Burlington System at Knoxville; died at his home, April 9, from cerebral embolism, aged 87.

Norman F. Terry, M.D. Miami Medical College, Cincinnati, 1876; a member of the American Medical Association; one of the best known surgeons of southwestern Missouri; an organizer and president of the board of trustees of the Springfield Hospital; died suddenly in his office in Springfield, April 17, from heart disease, aged 59. Members of the Greene County Medical Society attended his funeral in a body.

Talbert Sleneau, M.D. University of Michigan, Ann Arbor, 1883; formerly a member of the American Medical Association; a member of the Michigan State Medical Society; a veteran of the Civil War; great medical examiner of the Knights of the Modern Maccabees; died at his home in Port Huron, April 21, Aged 66.

Philippe Ricord, M.D. College of Physicians and Surgeons, New York City, 1868; a member of the Medical Society of the State of New Jersey; a medical cadet during the Civil War; for more than forty years a practitioner of Newark; died at the home of his sister in that city, April 10, from pneumonia, aged 68.

George Franklin Floyd, M.D. Hospital College of Medicine, Louisville, Ky., 1883; a member of the State Medical Association of Texas and once president of the Hunt County Medical Society; local surgeon at Lone Oak for the Missouri, Kansas and Texas Railroad; died at his home April 11, from pneumonia, aged 52.

Victor Seymour Pier, M.D. College of Physicians and Surgeons, New York City, 1901; a member of the Medical Society of the State of New York; historian to the Brooklyn Hospital and a member of the dispensary staff of the New York Polyclinic Hospital; died at his home in Brooklyn, April 17, aged 36.

Samuel Fritz Kessler, M.D. Ensworth Medical College, St. Joseph, Mo., 1888; Jefferson Medical College, 1889; a member of the American Medical Association; professor of anatomy in Ensworth Medical College; a member of the Board of Health of St. Joseph; died at his home, April 16, from heart disease, aged 49.

Henry Alexander France, M.D. Albany (N. Y.) Medical College, 1864; one of the best known practitioners of the Rockaway Peninsula; a veteran of the Civil War; for three terms postmaster of Far Rockaway, L. I., N. Y.,; died at his home in Far Rockaway, April 15, from disease of the liver, aged 78.

Jasper Newton Boyd, M.D. Medical College of the State of South Carolina, Charleston, 1877; a member of the State Medical Association of Texas; a Confederate veteran; for forty years a practitioner of Hopkins and Delta counties; died at his home in Austin, April 9, from nephritis, aged 69.

Charles Fitch Grant, M.D. Long Island College Hospital, Brooklyn, 1886; a member of the Medical Society of the State of California, a much-esteemed practitioner of Cloverdale and a member of the village board of trustees; died at his old home, Grand's Station near Healdsburg, April 15, aged 48.

Calvin Pancoast Gailey, M.D. Jefferson Medical College, 1874; mayor of Marion, Ohio, from 1882 to 1890, and treasurer of Marion township for more than twelve years; who had been blind for thirty-four years; died at his home in Marion, April 9, from pernicious anemia, aged 66.

Samuel Joseph Mayeux, M.D. University of the South, Sewanee, Tenn., 1906; a member of the Louisiana State Medical Society; coroner-elect of Avoyelles Parish; died in his home in Moreauville, April 4, from disease of the liver, aged 28.

James Henry Dye, M.D. Medical College of Ohio, Cincinnati, 1876; a member of the Ohio State Medical Association and Cleveland Academy of Medicine; died in that city, April 17, after an operation for the removal of gallstones, aged 60.

F. Demetrius Gibson, M.D. Vanderbilt University, Nashville, Tenn., 1890; a member of the Medical Association of the State of Alabama; died at his home in Moulton, April 17, from pneumonia.

C. J. Shelton (license, West Virginia, 1896); of Williamson; died in Ashville, N. C., April 5; from tuberculosis.

The Propaganda for Reform

IN THIS DEPARTMENT APPEAR REPORTS OF THE COUNCIL ON PHARMACY AND CHEMISTRY AND OF THE ASSOCIATION LABORATORY, TOGETHER WITH OTHER MATTER TENDING TO AID INTELLIGENT PRESCRIBING AND TO OPPOSE MEDICAL FRAUD ON THE PUBLIC AND ON THE PROFESSION

THERAPEUTIC RESEARCH

Torald Sollmann, M.D.
CLEVELAND

It is often said that therapeutics, and especially drug therapeutics, have not kept step with the progress of medical science. The reiteration of the fact may become somewhat tiresome, but it serves a useful purpose, in that it will gradually lead to a correction of the fault. An attempt in this direction is being made by the Council on Pharmacy and Chemistry through the appointment of a Committee on Therapeutic Research, and the Board of Trustees of the American Medical Association has made an appropriation for this work. This is in direct line with the basic objects of the Council—namely, the advancement of therapeutics by substituting definite knowledge for vague impressions and general "beliefs."

It is self-evident that such definite knowledge of the actions of therapeutic agents, under all sorts of conditions, is indispensable to their intelligent application. It is necessary to know their effects, and if possible the mechanism of their actions, not only in healthy animals and men, but also in the diseased conditions in which they may be employed. Every observing clinician has, of course, made incidental observations in this direction; but incidental, and necessarily more or less superficial observations, have but slight permanent value. They are apt to lead to mere vague impressions, which no one, outside of the observer himself, can utilize intelligently. They will not advance our knowledge. These matters must be investigated directly, according to well digested plans, and with the best available methods, quantitatively if possible.

The analysis of well-defined clinical data will set tempting and highly fruitful experimental problems to the pharmacologist, and his results in turn will set further problems for the clinician and thus the two will be mutually helpful toward a common advance of therapeutics. This is well illustrated by the relatively high status of the therapeutics of circulatory diseases—a field in which clinical data have been gathered with some degree of objective accuracy. Even this field is far from being exhausted—witness the confusion concerning the effects of strychnin, of caffein, of aconite and veratrum, etc. If we turn to other fields, such as respiration and diseases, the paucity of exact observations is much more striking. There are isolated exact observations in most all directions; but they are too much isolated, too few and too scattered, to be of much use.

The complexity of therapeutic problems demands a multitude of observations under the most varied conditions; and this generally demands a number of observers, working with common methods and with a common plan.

Moreover, much of the older work, even that of the best quality, needs repetition in the light of our present knowledge, and with modern methods. It is useless to repeat work unless we can improve on the old.

With many therapeutic problems, a critical study, sifting, and compilation of the available data would be of great value to practitioners, and indispensable as a starting-point for further investigation. This has been the experience in other departments of medical science. The paucity of such impartial literary digests in therapeutics has caused the profession to draw its information largely from abstracts circulated by interested manufacturers, which are all too often worse than useless.

The number of practically urgent problems in therapeutics is so great, and their nature so varied and complex, that the most which the members of the Council could accomplish by personal research would be inadequate to improve the situation seriously. The Committee therefore judged that it would be most useful by supporting and facilitating such researches. To this end, the Committee aims to gather data and suggestions; to transmit these to investigators interested in these lines; to bring together those who could effectively cooperate, to extend limited financial assistance where needed; in a word, to serve as a sort of clearing-house to those who care to avail themselves of its cooperation.

In practice, the Council aims to select the lines which appear most promising; to interest competent investigators to take charge of these lines; and to render to them such assistance as it can. Each research is thus supervised by some one especially fitted for the task, who is given complete liberty, responsibility and credit. The investigator may publish his results wherever he desires, but related investigations will be collected and reprinted as monographs, by the Council, for the benefit of the profession.

In the selection of problems, emphasis will be laid mainly on their feasibility and practical importance. All who are interested are invited to submit suggestions along these lines. The following problems, which are now being actively investigated, will give some idea of the intended scope of the work. Other lines will be opened as soon as investigators can be found to undertake them.

The clinical value of cardiovascular drugs; cooperative investigation, starting with strychnin.

Relative efficiency and toleration of natural and synthetic salicylates; experimental, chemical and clinical.

Digitalis bodies: Duration of action and absorption; clinical and experimental.

Efficiency of intestinal antiseptics: A critical examination of literature as well as experimental investigation.

Critical literature of therapeutics of phosphorus compounds.

Standardization of antiseptics and germicides.

Pharmacology of commercial vanadium preparations.

Chloroform: Effects of origin and impurities on toxicity.

Organic Iodids: Fate, efficiency and side actions.

The Committee realizes that it has undertaken a very large task, the outcome of which depends on the cooperation which it can enlist, rather than on its personal endeavors. On the whole, the task is a hopeful one, provided that one does not demand immediate or startling returns. I shall not be disappointed so long as the Committee engages the active and continuous interest of even a single competent investigator.

Suggestions, applications and other communications to the Committee should be addressed to its Secretary, Prof. W. A. Puckner, 535 Dearborn Ave., Chicago.

ALCOLA

A Fake Cure for Drunkenness

Most newspaper readers are familiar with an advertisement that, on its face, seems to originate with a Mrs. Margaret Anderson, Hillburn, New York. The reader is told to "write to this woman if you want to stop a man from drink." Those who read advertisements rather carefully, but who are not familiar with the tricks of the trade, may be surprised at the numerous addresses from which Mrs. Anderson advertises. From a few advertisements of this concern in THE JOURNAL'S files, Mrs. Anderson seems to live in the following places at Hillburn:

16 Oak Street.	442 Oak Street.	11 Ridge Avenue.
150 Oak Street.	204 Elm Avenue.	843 Home Avenue.
293 Oak Street.	12 Pine Avenue.	904 Home Avenue.
308 Oak Street.	52 Pine Avenue.	808 Home Avenue.

Of course, what this means is that Mrs. Anderson, wishing to find out which newspapers and magazines bring in the largest advertising returns, "keys" her advertisements. But it is not Mrs. Anderson who desires this information, for this woman of Hillburn, New York, is but the stool-pigeon for the Physicians Cooperative Association, 1006 South Michigan Avenue, Chicago, which sells a fake cure for drunkenness that it calls Alcola. In other words, Mrs. Anderson bears the same relation to the Physicians Cooperative Association that Dr.

Mary E. Webb bore the Edward J. Woods concern, employed in the same disreputable business.

We understand that the men behind the Physicians Cooperative Association are Edward F. Stace, M.D., and Joseph C. Flowers, M.D. These men are also said to be the chief officers of a concern that operates a "correspondence school" of salesmanship.

THE STOOL-PIGEON

According to the older advertisements, Mrs. Anderson cured her husband of drunkenness. More recently, she is credited with having "cured her husband, her brother, many of her neighbors and hundreds of friends." She did this—also according to the advertisements—by means of a "simple inexpensive home remedy." Should you wish to stop a friend or relative from drinking, "she will gladly tell you just what it is." And "the remedy is perfectly safe and easy to use and the drinker's knowledge or consent is not necessary."

Mrs. Anderson does not want your money; not at all! "So there is no reason why you should not write her at once."

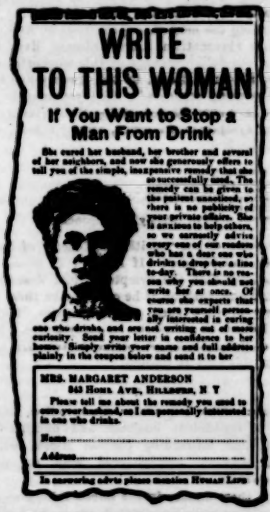

WRITE
TO THIS WOMAN
If You Want to Stop a Man From Drink
She cured her husband, her brother and several of her neighbors, and now she generously offers to tell you of the simple, inexpensive remedy that she so successfully used. The remedy can be given to the patient unnoticed, so there is no publicity of your private affairs. She is anxious to help others, so we earnestly advise every one of our readers who has a dear one who drinks to drop her a line to-day. There is no reason why you should not write her at once. Of course she expects that you are yourself personally interested in curing one who drinks, and are not writing out of mere curiosity. Send your letter in confidence to her home. Simply write your name and full address plainly in the coupon below and send it to her
MRS. MARGARET ANDERSON
945 Home Ave., Hillsdale, N Y
Please tell me about the remedy you used to cure your husband, as I am personally interested in one who drinks.
Name.....
Address.....
In answering advts please mention Human Life

Fig. 1.—A typical Alcola advertisement. Notice that no reference is made to the concern which sells Alcola, neither is there any mention of the preparation itself. This advertisement appeared in *Human Life*.

Should you write, you will receive a printed letter, skilfully designed to imitate a hand-written communication, in which she describes how she learned of the wonderful Alcola, which is sold only by the Physicians Cooperative Association, Chicago. She has written to the Chicago concern, says the letter, asking them "to send you a trial treatment." Sure enough, a letter comes from the Physicians Cooperative Association stating that the company had learned from Mrs. Anderson "that you wish to stop drinking," hence they are sending a "trial treatment."

The trial treatment consists of nine tablets. Three of them, the No. 1 tablets, are pale yellow in color; three others, the No. 2 tablets, are about the same size as the yellow tablets but are of a light chocolate color; the remaining three, the No. 3 tablets, are pinkish-gray. The instructions are to give tablets Nos. 1 and 2 alternately, one tablet three times a day at meal times, tablet No. 3 is to be given when the patient has been "drinking to a noticeable degree."

Should the trial treatment not convince the prospective victim that it was worth while to send the $5 (?) that is—at first—asked for the "complete treatment," he is bombarded with the usual series of follow-up letters. Like every mail-order medical fake, the price asked for Alcola decreases as time goes by. As a final resort, the company sends what purports to be a personal letter from its "medical director." Dr. Edward F. Stace, urging the person written to to send for the treatment at the specially reduced price. Should $5 —or less—be sent for the complete treatment, the purchaser receives a small cardboard box in which are three small boxes labeled respectively, No. 1, No. 2 and No. 3. These small boxes contain tablets identical in color, size and general appearance with those sent as a trial treatment. The instructions for using these tablets are the same as those which came with the "trial treatment."

The tablets were analyzed in the American Medical Association's laboratory with the following results:

LABORATORY REPORT

Box No. 1.—This package contained 62 pale yellow tablets, the average weight of each of which was nearly 6 grains. The examination indicated the presence of the following drugs in the quantities given:

Caffein (anhydrous)	3.81 per cent.
Strychnin	0.28 per cent.
Talc	3.19 per cent.
Starch	1.37 per cent.
Milk sugar	83.76 per cent.
Gum and coloring matter, of each	a trace

Each tablet contained an average of about ¼ grain (0.23) of caffein and nearly $^1/_{60}$ (0.017) grain of strychnin.

Box No. 2.—This package contained 62 light chocolate-colored tablets, the average weight of each of which was about 5.6 grains. The examination indicated the presence of the following drugs in the quantities given:

Strychnin *	0.18 per cent.
Boric acid	3.68 per cent.
Milk sugar	85.72 per cent.
Talc	3.53 per cent.
Starch	0.98 per cent.
Gum and coloring matter, of each	a trace

[* As separated from the preparation this alkaloidal matter contained traces of a basic dye which could not be completely separated from the alkaloid.]

Each tablet contained an average of about $^1/_{100}$ grain (0.01) of strychnin.

Box No. 3.—This package contained thirty grayish-pink tablets the average weight of each of which was nearly 3 grains. The examination indicated the presence of the following drugs in the proportions given:

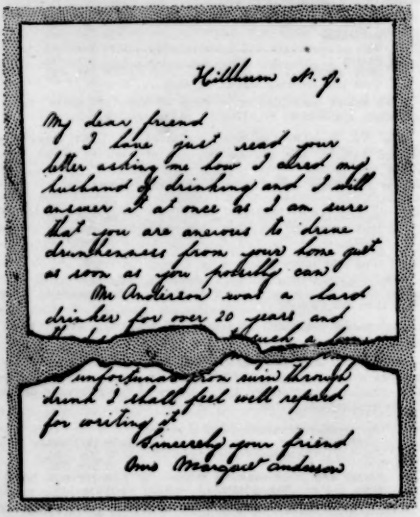
Tartar emetic (antimony and potassium tartrate)	15.50 per cent.
Gypsum (crystallized calcium sulphate)	60.40 per cent.
Talc	3.20 per cent.
Starch and other vegetable tissue	1.10 per cent.
Gum and coloring matter, of each	a trace

Each tablet contains an average of about ½ grain (0.46) of tartar emetic. The analyses indicate that the composition of Alcola as sold in this country is essentially the same as that of the product sold in Great Britain, a specimen of which was recently examined by the chemists of the British Medical Association. *(Brit. Med. Jour.*, Jan. 20, 1912.)

From this it will be seen that the tablets Nos. 1 and 2 contain strychnin, while tablet No. 3 contains tartar emetic. Each No. 3 tablet contains as much tartar emetic as constitutes an "average dose" according to the Pharmacopeia. This dangerous poison is thus sent out without warning and in a letter, which the purchaser receives soon after the "treatment" comes, the statement is made with reference to these tablets: "Don't be afraid to use them; if one does not produce vomiting, you can in this case [when the victim is under the influence of liquor] use as many as three or four at one time." Thus the victim of alcohol, whose heart action is probably impaired, whose kidneys are affected and whose stomach and intestines are in a more or less irritable condition, is to be given four times the average dose of a poison which is a heart depressant, which is a distinct irritant to the kidneys and to the gastro-intestinal tract and which has been known to cause death in an adult from the very dosage recommended by the exploiters of Alcola.

A WORTHLESS ANALYSIS

Probably to offset the damaging disclosures of the chemists of the British Medical Association and in the hope of discounting any reports that may be made by American chemists, the Physicians Cooperative Association is now sending out, with its other advertising material, what purports to be an "analytical report on Alcola." The "analysis" is alleged to have been made by one "Dr. J. C. Mascarenhas, Ph. D., F.C.S., K.S.B., etc." The gentleman who has thus dipped into the alphabetical "grab-bag" and withdrawn as many letters as he can conveniently tack onto a name already sufficiently complicated, apprises the public of the fact that he is an "analyst and consulting chemist and medico-chemical expert" also a "specialist in foods, drugs and medicinal preparations" as well as an "examiner and technical adviser." Dr. J. C. Mascarenhas, Ph.D., F.C.S., K.S.B., etc., certifies that he has examined Alcola and has "failed to find anything therein that can prove injurious or harmful when taken or administered in accordance with the directions given."



Hillburn N. Y.

My dear friend
I have just read your letter asking me how I cured my husband of drinking and I will answer it at once as I am sure that you are anxious to have drunkenness from your home get as soon as you possibly can.
Mr Anderson was a hard drinker for over 20 years and [illegible] such a [illegible]
[illegible] unfortunate [illegible] sure through [illegible] drink I shall feel well repaid for writing it.
Sincerely your friend
Mrs Margaret Anderson

Fig. 2.—Typical reproduction of part of the letter received by those who write to Mrs. Margaret Anderson. It is rather skilfully printed to imitate handwriting, and comes on a tinted note paper, such as is used in social correspondence. It is in this letter that Mrs. Anderson tells her correspondents that she is asking the Physicians Cooperative Association to send them a "trial treatment" of Alcola.

Mr. Mascarenhas is further of the opinion that "Alcola will be found to be a valuable and effective remedy for the purpose intended." Assuming that the "purpose" which Alcola serves is that of making money for its exploiters at the expense of those who are anxious to cure alcoholism in themselves or others, we might admit that Mascarenhas' opinion is a correct one. Alcola has doubtless proved itself a "valuable and effective" means of defrauding the public.

By referring to our files, we find that Dr. J. C. Mascarenhas is a member—in fact, the "librarian," indeed—of a fake organization, the "Society of Science, Letters and Art of London" so that, in addition to his other titular appendages, he may place the letters "F.S.Sc." after his name, indicating that he is a "fellow" of the Society of Science, Letters and Art. These "fellowships" come at one guinea ($5) each, cash strictly in advance!

"GUARANTEED UNDER THE PURE FOOD LAW"

In the advertising matter which the Physicians Cooperative Association sends out, the following falsehood is printed:

> "Alcola complies in every way with this law [the federal Food and Drugs Act] and the government has therefore issued to us 'Guarantee Serial No. 3200.'"

With the haziness that exists in the minds of many people regarding the scope of the national pure food law, it is worth calling attention to the fact that the government does not issue any "guarantees." It does give to any person who asks for it, a "serial number" under which that person may "guarantee" his product. All that this means, of course, is that should the preparation be found to be adulterated or misbranded under the law, the government will hold, as responsible, the person to whom the serial number was issued, and not the individual retailer who may act as an agent for the real seller.

RE-VES-TO, ANOTHER FRAUD

Nor is Alcola the only product sold by the Physicians Cooperative Association. With the Alcola advertising matter is a circular detailing the marvelous properties of Re-Ves-To, which "quickly cures rheumatism, kidney disease, liver and bladder troubles." A one-dollar package of this wonderful remedy will be sent free "if you will send us only twenty-five cents to pay postage and packing expenses." That you may be able to tell whether you have some disease of the liver, kidneys or bladder, the following symptoms are given, among others, as "positive evidence" of the fact:

"Cold and sweaty feet."
"Disinclination to work."
"Extreme fondness for sweets."
"Bad smelling breath."
"Being nervous, fretful, gloomy or despondent."

These are a few of the "positive evidences" of disease of the kidneys, liver and bladder! If Edward F. Stace could make everybody believe that the symptoms just described indicate serious disease and, further, if he could make them believe that Re-Ves-To would cure such diseased states, there is little doubt that Re-Ves-To would be in every home. Fortunately, the number of persons who are willing to take Dr. Stace's word in matters of this sort is limited.

SUMMARY

To sum up: The Physicians Cooperative Association is engaged in a fraudulent business and obtains victims by making false and misleading claims; Alcola will not cure drunkenness, whether administered with or without the patient's knowledge.

Not only is there danger in the public taking repeated doses of pills containing such powerful drugs as tartar emetic and strychnin—especially when lulled into a false sense of security by the claim that they are perfectly harmless—but a cruel and inhuman fraud is practiced on the unfortunate wives or children who purchase Alcola in the belief that with it they can cure secretly the husbands or fathers who are the victims of alcoholism. The exploiters of these "secret cures" know full well that from the very nature of the case no publicity will be risked and that the money that is sent in will never be demanded even though the purchasers are convinced that they have been swindled. And it is on this element of secrecy that the company plays:

> "He will not notice it and need never know why or how he was made to stop drinking, unless you want to tell him. This is our way, the new way, the modern scientific way, and is it not much simpler, easier and better than wasting your time and temper trying to get him to stop by will power, pledges or promises—which he doesn't keep?"

Some "patent medicine" frauds are more vicious than others. Next to the vampires who sell narcotic mixtures under the specious claim that they will cure drug habits, the most heartless are the exploiters of secret cures for drunkenness. Of the latter, the Physicians Cooperative Association is a typical example.

V. 5
1912

Correspondence

Delinquent Medical Milk Commissions

To the Editor:—The editorial on certified milk in THE JOURNAL of April 20 (p. 1200) leads me to say that the Association of Medical Milk Commissions, which will hold its next meeting in Louisville on April 30 and May 1, will undertake to examine carefully into the fact that certain medical milk commissions are delinquent, and that the system, which cannot be criticized, is brought into reproach by the poor work of many of the medical commissions created.

Our association has admitted into it various commissions which were supposed to be properly organized and properly authorized by a medical society, but it has been found that many of these commissions are indifferent, or do not realize the great responsibility resting on them.

Last year a committee was appointed to inquire thoroughly into the status of many of these commissions. The committee has very laboriously gone over this matter by a voluminous correspondence, and has gathered a mass of data which is the basis of a report to be made in Louisville, including a complete revision of the association's working methods and standards. We expect to be able to eliminate many of these commissions from our association, which are now discrediting the cause of clinically clean milk (certified milk), which represents the crusade inaugurated twenty-four years ago by the medical profession, and was the leader in the pure milk movement.

I have given herewith a definition of the certified milk system which is an attempt on my part to make a concrete statement which will include all the salient features in the system, and I wish to emphasize that any milk called "certified milk" that does not fulfil all of these features, is falsely so called, and is not certified milk in fact, and should not be recognized as certified milk.

DEFINITION OF CERTIFIED MILK

Certified milk is a product of dairies operated under the direction of a medical milk commission; which body is appointed for voluntary service by a medical society. The milk is designed to fulfil standards of quality, purity and safety to insure its adaptability for clinical purposes and the feeding of infants.

The certificate of the commission constitutes its authorization for the use of the term "certified." The certification is based on the fulfilment of prescribed medical requirements for the milk and is the guarantee that it conforms to definite standards and to fixed methods and regulations for its production.

The standards of quality consist of fresh, whole milk, unchanged by heat or cold, less than twenty-four hours old when sold, held between the temperatures of 48 and 50 F., with not less than 12 per cent. of total solids, with fat content between 3.5 and 5.5 per cent. and without the addition of any other material, substance, chemical or preservative.

The standards of purity for the milk consist of the entire absence of particles of foreign matter, of the lowest possible bacterial and dust-dropping content consistent with the highest possible practice of dairy hygiene, provided that the numerical bacterial contamination is at all times below an average weekly count of 10,000 per cubic centimeter.

The standards of safety consist in the use of every known means to exclude from the milk pathologic microorganisms, a medical guarantee that every employee handling the milk is free from disease and is not a disease carrier, and a veterinary guarantee that the cattle are in perfect health and cannot transmit through the milk any bovine affection.

The methods and regulations for the production of certified milk are those adopted from time to time by the American Association of Medical Milk Commissions; they are based on the most advanced clinical requirements, prophylactic science and dairy husbandry, and are changed as the action of the association modifies its technic for the attainment of its standards.

I think a proper publicity of the work of this association would be a great impulse to the reforms which the association wishes to inaugurate in drawing the lines more closely about the association's work and the system of milk protection, designed for clinical purposes. HENRY L. COIT, Newark, N. J.

Queries and Minor Notes

ANONYMOUS COMMUNICATIONS will not be noticed. Every letter must contain the writer's name and address, but these will be omitted, on request.

TURPENTINE NOT THE SAME AS OIL OF TURPENTINE

To the Editor:—In the formula given in the abstract of Scharff's article, "Salicylic Medication Externally" (THE JOURNAL, March 2.3, 1912, p. 904) no base for the ointment appears to be given. The formula as printed does not give a very satisfactory salve. Cannot an ointment base be added to the formula?

DR. R. K. KEECH, Cedar Rapids, Iowa.

ANSWER.—In the abstract referred to, the formula given is a copy of the formula printed in the *Therapeutische Monatshefte*, February, 1912. The author states that the intimate mixture of salicylic acid dissolved in oil of turpentine with sulphur and turpentine produces an easily spread, sticky ointment. It is possible that our correspondent in attempting to compound the prescription used only oil of turpentine instead of using also the solid turpentine mentioned; if so, this would account for his difficulty.

TREATMENT OF HYPERIDROSIS

To the Editor:—Please suggest something of value in the treatment of continuous sweating of the forearms or hands, or can you refer me to any recent articles on this subject?

E. E. TREDWAY, Enterprise, Ore.

ANSWER.—Local hyperidrosis usually affects the hands and feet. Its occurrence on the forearms is rare. In some cases a nervous disturbance of the vasomotors is at the basis of such symptoms and these cases may demand treatment for neurasthenia, hysteria or other constitutional diseases. As local applications, such remedies as tannic acid, alum or zinc sulphate may be applied. Solution of formaldehyd 1 per cent. is also a useful application. Many recommend the *x*-ray as the best treatment in such conditions.

The following are recent articles on this subject:

Hyperidrosis, Therapeutics in THE JOURNAL, March 23, 1907, p. 1059.

Kromayer: Roentgen Ray Cure of Hyperidrosis and Oily Seborrhea, *München. med. Wchnschr.*, Jan. 28, 1909; abstr. in THE JOURNAL, March 6, 1909, p. 866.

Herbert, H.: A Case of Hyperidrosis Universalis, with Continuous Fever, THE JOURNAL, Nov. 11, 1911, p. 1697.

Meachen, C. N.: Profuse Sweating, *Practitioner*, October, 1911.

WHIPWORMS AND DWARF TAPEWORMS

To the Editor:—Please give symptoms, diagnosis and treatment of (1) whipworms and (2) dwarfworms in the human host. T. J. T.

ANSWER.—1. There is no certain evidence that the whipworm, *Trichocephalus dispar*, produces any symptoms; therefore no treatment has been recommended. Diarrhea has been attributed to its action in rare cases. No doubt thymol, santonin or possibly male fern might be used with benefit if the symptoms could be definitely traced to this worm.

2. By dwarfworm we presume our correspondent means the dwarf tapeworm, *Tænia nana* or *Hymenolepis nana*. It is believed by some observers that, occurring in children, as it commonly does, this parasite is the cause of epileptiform convulsions and enuresis nocturna. Thousands of worms may be found within a cubic centimeter of fecal matter. Persons infected should occupy separate beds until cured. Male fern is the best remedy.

EPINEPHRIN IN ASTHMA

To the Editor:—Will the preparations of epinephrin that are now being prepared to give internally relieve asthma as well as those given hypodermically? OSWALD KAFER, M.D., Edward, N. C.

ANSWER.—Probably not, since in other conditions the pressure-raising or vasoconstrictor effect of epinephrin itself is found to be less marked when it is given by mouth than when given hypodermically.

The Public Service

JOURNAL Announcements, Knocks and Boosts, Books Received and changes in the Public Service will be found in the advertising section, commencing on the second page following reading matter.

Medical Economics

THIS DEPARTMENT EMBODIES THE SUBJECTS OF POST-GRADUATE WORK, CONTRACT PRACTICE, LEGISLATION, MEDICAL DEFENSE, AND OTHER MEDICOLEGAL AND ECONOMIC QUESTIONS OF INTEREST TO PHYSICIANS

ANOTHER TYPE OF PHYSICIAN'S COMBINED RESIDENCE AND OFFICE †

The accompanying illustrations give a front view of the combined office and residence of Dr. Aims R. Chamberlain, Maplewood, N. J., and a ground plan showing the arrangement

Fig. 1.—Residence and office of Dr. Aims R. Chamberlain, Maplewood, N. J.

of the rooms in both residence and office. The style of architecture is colonial and the impression one gets is that of comfort and roominess.

The living room, 18x28 feet in size, opens by two sliding windows on a veranda on the side of the house. It also contains a large fireplace, and the possibilities for comfort in such a large living room are apparent. The hall-way is also ample and connects with the rear portion of the house. The large dining-room is in the front of the house and some might object to it on that account, but on the other hand, it allows the physician to see the approach of patients. It is a common and popular plan in these days of outdoor life to have a screened dining porch off the dining-room and in such a case it would probably be desirable to have the dining-room in the rear, for sake of privacy. These various considerations have to be weighed by the one who is planning to occupy the house.

The office portion is practically a separate building, with separate entrance from the street, and connects with the residence only through the pantry. It contains four rooms on the ground floor with ample lavatories, medicine closet, etc., and a laboratory on the second floor. The arrangement of the office rooms is convenient and they are of ample size. The employment of sliding doors between the consulting room and the operating room is an admirable space-saving arrangement. In the plan these doors are indicated by asterisks (*). It is worth noting that there are three doors between operating room and waiting room.

The conformation of the ground in this instance places the garage, which is seen in the illustration, below the level of the residence and is rather a desirable feature, inasmuch as it is not too conspicuous.

There are other interesting features of the residence portion of the house, as may be noted on the plan. The closet by the side of the fireplace in the dining-room is perhaps for china. The detailed plans before us (from which we have had the accompanying illustration copied) show a large number of minor points which we have not reproduced, such as the ice-box in one of the storage places, the cupboard and sink in the kitchen, book-shelves in the office, etc. The doors between the servant's hall and the front hall allow complete separation of the two. All in all, this combined residence and office ought to provide great comfort for Dr. Chamberlain and his family.

† Previous issues of THE JOURNAL have contained plans of other houses: Feb. 10, 1912, p. 431; March 9, 1912, p. 728; March 30, p. 957; April 6, 1912, p. 1055.

POSTGRADUATE COURSE FOR COUNTY SOCIETIES

Ninth Month—Third Weekly Meeting

CHOLELITHIASIS[1]

ETIOLOGY

Classification of gall-stones, chief constituents. Origin of cholesterin and bilirubin—calcium, changes necessary to their production. Effects of chemical and bacterial irritants, organisms usually found in bile, in gall-stones. Effect of stasis of bile. Entrance of micro-organisms (a) by common duct, (b) by blood current, from portal vein. Age and sex. Pregnancy, sedentary life, typhoid fever. Incidence.

SYMPTOMS

OBSTRUCTION OF COMMON DUCTS: Symptoms of cholangitis. Mechanical effects. Jaundice; intensity, duration. Itching. Pain. Temperature, chills, "Charcot's intermittent fever." Gastric disturbances. Physical examination. Symptoms of suppurative or ulcerative cholangitis. Association of pancreatitis.

OBSTRUCTION OF CYSTIC DUCT: Pain, jaundice, tenderness, gastric and intestinal disturbances, presence of tumor. Sequelæ, empyema, atrophy or calcification of gall bladder.

REMOTE EFFECTS: (a) Stricture of the duct, (b) intestinal obstruction, (c) fistulæ.

AMYLOID DISEASE OF THE LIVER

ETIOLOGY: Microbic origin of amyloid degeneration, its occurrence in the body. Sequel of chronic suppurations, necrosis of bones, tuberculosis, pyelitis, syphilis, blood-dyscrasiæ. Tests for amyloid material.

SYMPTOMS: General condition, gastro-intestinal symptoms, mental derangements, pain, urine. Physical examination.

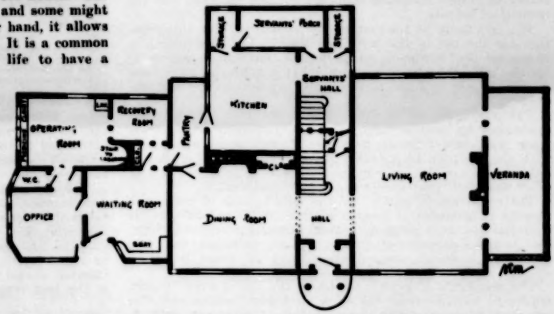


Fig. 2.—First floor plan of the house and office. The doors indicated by asterisk (*) slide into the partitions.

1. Progressive Medicine, December, 1908. Transactions of Congress of American Physicians and Surgeons, 1903, vi.

The Physical Foundation.—To be a good animal is the first requisite to success in life, and to be a nation of good animals is the first condition of national prosperity.—*Herbert Spencer.*

Medical Education and State Boards of Registration

COMING EXAMINATIONS

ARKANSAS: Regular, Little Rock, May 14. Sec., Dr. F. T. Murphy, Brinkley.

FLORIDA: Regular, Jacksonville, May 7-8. Sec., Dr. J. D. Fernandes; Eclectic, Jacksonville, May 6-8. Sec., Dr. Hiram J. Hampton, Tampa.

GEORGIA: Homeopathic, Atlanta, May 8. Sec., Dr. R. E. Hinman, 1061½ Whitehall Street, Atlanta.

LOUISIANA: Regular, Tulane University, New Orleans, May 30 to June 1. Sec., Dr. A. B. Brown, 108 Baronne Street; Homeopathic, New Orleans, May 6. Sec., Dr. Edward Harper, 702 Maccheca Bldg.

MASSACHUSETTS: State House, Boston, May 14-16. Sec., Dr. Edwin B. Harvey, State House.

MISSISSIPPI: State Capitol, Jackson, May 14. Sec., Dr. W. W. Smithson.

NEBRASKA: Senate Chamber, State House, Lincoln, May 22-23. Sec., Dr. C. P. Fall, Beatrice.

NEVADA: Carson City, May 6. Sec., Dr. S. L. Lee.

NEW YORK: May 14-17. Chief of Examinations Division, Mr. Harlan H. Horner, Department of Education, Albany.

WISCONSIN: Milwaukee, May 28-30. Sec., Dr. J. M. Beffel, 3200 Cluburn Street.

Massachusetts March Report

Dr. Edwin B. Harvey, secretary of the Massachusetts Board of Registration in Medicine, reports the written oral and practical examination held at Boston, March 14-16, 1912. The number of subjects examined in was 13; total number of questions asked, 70; percentage required to pass, 75. The total number of candidates examined was 62, of whom 41 passed including 1 non-graduate and 21 failed including 3 osteopaths and 8 non-graduates. The following colleges were represented:

College	Year Grad.	Per Cent.
PASSED		
Yale Medical School	(1910) 81.8; (1911)	81.2
Medical School of Maine	(1877) 80; (1911)	75.7
College of Physicians and Surgeons, Baltimore	(1910) 75,	79.5
John Hopkins University	(1911)	81.2
Harvard University Medical School	(1912) 75,	75.5
Tufts College Medical School (1910) 75, 75.5, 76.9, 78.6, 81.6; (1911) 75, 75, 75, 75.7, 76.7, 76.7, 78.9.		
College of Phys. and Surgs., Boston	(1909) 75; (1911)	75
Cornell University Medical College	(1907)	80
Albany Medical College	(1908) 76.7; (1911)	79.6
New York University Medical College	(1892)	80
University of Buffalo	(1907)	83.4
Dartmouth Medical School (1911) 75, 76.8, 83.2.		
Jefferson Medical College	(1907)	76.8
University of Pennsylvania	(1910)	83.1
University of Tennessee	(1911)	77.5
University of Vermont	(1911) 75,	75.6
University of Virginia	(1880)	80
Laval University, Quebec	(1911)	75
University of Athens, Greece	(1904)	75.3
Halifax Medical College, Nova Scotia	(1910)	78.5
FAILED		
Kentucky School of Medicine	(1908)	69
Atlanta School of Medicine	(1911)	63.8
College of Physicians and Surgeons, Boston	(1908) 59.8, 62.7,	60.4
Eclectic Medical College of the City of New York	(1910)	64.7
University of Vermont	(1911)	71
Laval University, Quebec	(1911) 54,	68.9
University of Naples, Italy	(1910)	63.7

Wyoming March Report

Dr. A. B. Tonkin, secretary of the Wyoming State Board of Medical Examiners, reports the written examination held at Riverton, March 13-15, 1912. The number of subjects examined in was 13; total number of questions asked, 100; percentage required to pass, 75. The total number of candidates examined was 3, all of whom passed. Eight candidates were licensed through reciprocity. The following colleges were represented:

College	Year Grad.	Per Cent.
PASSED		
University of Colorado	(1911)	86.2
Rush Medical College	(1898)	91.4
St. Louis College of Physicians and Surgeons	(1901)	85.5

LICENSED THROUGH RECIPROCITY

College	Year Grad.	Reciprocity with
University of Colorado	(1911)	Colorado
Northwestern University Medical School	(1907)	Illinois
Rush Medical College	(1902)	Wisconsin
Jenner Medical College	(1906)	Illinois
State University of Iowa, College of Medicine	(1905)	Vermont
Woman's Medical College of Pennsylvania	(1907)	Utah
Tennessee Medical College	(1905)	Tennessee
University of Vermont	(1909)	Vermont

Society Proceedings

COMING MEETINGS

AMERICAN MEDICAL ASSOCIATION, Atlantic City, N. J., June 4-7.

American Academy of Medicine, Atlantic City, May 30-June 2.
Amer. Assn. of Genito-Urinary Surgeons, Philadelphia, June 7-8.
American Climatological Association, Hartford, Conn., June 10-12.
American Dermatological Association, St. Louis, May 23-25.
American Gastro-Enterological Association, Atlantic City, June 3-4.
American Gynecological Society, Baltimore, May 28-30.
American Laryngological Association, Atlantic City, May 9-11.
Amer. Laryngolog., Rhinolog. and Otolog. Soc., Phila., May 13-15.
American Medico-Psychological Association, Atlantic City, May 28-31.
American Neurological Association, Boston, May 30-June 1.
American Ophthalmological Society, Atlantic City, June 12-13.
American Orthopedic Association, Atlantic City, May 30-June 1.
American Otological Society, Atlantic City, June 10-11.
American Pediatric Society, Hot Springs, Va., May 29-31.
American Proctologic Society, Atlantic City, June 3-4.
American Society of Tropical Medicine, Atlantic City, June 3.
American Surgical Association, Montreal, May 29-31.
American Therapeutic Society, Montreal, May 31-June 1.
Arizona Medical Association, Bisbee, May 7.
Arkansas Medical Society, Hot Springs, May 13-16.
Association of American Physicians, Atlantic City, May 14-15.
Connecticut State Medical Society, New Haven, May 22.
Florida Medical Association, Tampa, May 8-10.
Illinois State Medical Society, Springfield, May 21-23.
Iowa State Medical Society, Burlington, May 8-10.
Maine Medical Association, Portland, June 12-13.
Massachusetts Medical Society, Boston, June 11-12.
Michigan State Medical Society, Muskegon, July 10-11.
Missouri State Medical Association, Sedalia, May 21-23.
Montana State Medical Association, Helena, May 8.
Nat. Assn. for Study and Prev. Tuberculosis, Washington, May 30-31.
National Association for Study of Epilepsy, Vineland, N. J., June 3.
Nebraska State Medical Association, Lincoln, May 7-9.
New Hampshire Medical Society, Concord, May 8-9.
New Jersey Medical Society, Spring Lake, June 11-13.
North Carolina Medical Society, Hendersonville, June 18-20.
North Dakota State Medical Association, Valley City, May 14-15.
Ohio State Medical Association, Dayton, May 7-9.
Oklahoma State Medical Association, Shawnee, May 7-9.
Rhode Island Medical Society, Providence, June 12-13.
South Dakota State Medical Association, Mitchell, May 22-24.
Texas State Medical Association, Waco, May 7-9.
Wisconsin State Medical Society, Wausau, May 22-24.

MEDICAL SOCIETY OF THE STATE OF NEW YORK

One-Hundred and Sixth Annual Meeting, held at Albany, April 15-18, 1912

The President, DR. WENDELL C. PHILLIPS, New York City, in the Chair

The officers elected were named in THE JOURNAL last week, in New York news, page 1293.

Resolutions were adopted endorsing a national department of health; approving the action of the American Medical Association in regard to education of the public in health matters, and pledging aid and cooperation in furthering its work in New York; urging that the quarantine service of the state and of the country should be wholly in charge of the federal government; directing the Committee on Experimental Medicine to instruct the laity in the benefits and rewards of animal experimentation related to the prevention and cure of disease and the saving of human life, and to resist by all honorable means, at all times, contemplated legislation directed to opposing or hindering lawful animal experimentation practiced for these purposes; and recommending to county societies every possible effort to enforce the section of the Principles of Medical Ethics of the American Medical Association that relates to giving or receiving commissions for recommending patients.

Relapses in Typhoid

DR. HERMAN F. L. ZIEGEL, New York City: Serious complications in relapses are comparatively rare, the most frequent being pneumonia and intestinal hemorrhage. The other complications in the twenty-five cases which I studied were bronchitis (in two cases), and bilateral femoral phlebitis, suppurative parotitis and tibial neuritis, each in one case. The ordinary expectant method of treatment was employed in these 166 cases of typhoid among which these relapses occurred.

DISCUSSION

DR. T. WOOD CLARK, Utica: One point that has not been brought out sufficiently is the relative lack of danger from

relapses in typhoid. Out of 1,000 cases of typhoid which I studied in an epidemic a few years ago, between 200 and 250 patients had relapses, but every patient who recovered from the original attack likewise recovered from the relapse.

DR. JOHN M. SWAN, Rochester: I would like to ask the author if he has had any experience in the use of the diazo-reaction in differentiating between the recrudescence of fever at the close of the typhoid and genuine relapses?

DR. LESTER, Seneca Falls: I would like to ask Dr. Ziegel if he has seen jaundice many times, and what he considers to be the pathology of jaundice, and what its bearing is on recovery in the relapsed cases.

DR. H. F. L. ZIEGEL, New York City: Our cases were really very mild. We had only one fatality, and in that case the diagnosis was difficult. The patient was treated for three weeks outside of a hospital without a diagnosis having been made. The Widal was negative until the patient had been in the hospital a week. Then intestinal hemorrhage came on, and later the patient developed lobar pneumonia from which she died. As to the diazo-reaction, it would be a valuable means of differentiating between the onset of a relapse and the recrudescence of fever if the reaction was fairly constantly present in the relapses, but the fact is in only a very small proportion of the relapses do we get a positive diazo-reaction. As to jaundice, I have not seen a case of jaundice during relapse in typhoid, but in looking up the literature of the subject I remember reading of a case of persistent jaundice occurring during a relapse. This was attributed to toxemia, as we sometimes get jaundice in pneumonia or other infectious diseases. The prognosis is good in such cases.

Vaccine Therapy in Medicine

DR. BENJAMIN W. STEARNS, Unadilla: In order to obtain the best results from vaccine therapy the patients must be selected with care. Chronic cases or localized infections in which the body is not doing its full duty in producing natural immunity, should be chosen. Cases in which a temporary increase in the severity of the disease might do permanent injury must be avoided. The etiology of the disease should be proved bacteriologically, and whenever possible an autogenous vaccine should be obtained, although an initial dose of a stock vaccine may be administered while awaiting the manufacture of the autogenous vaccine. The dose should be small at first, and the intervals of injection should not be too short. The symptoms of constitutional reactions should be watched for diligently, and in no case should an injection be given until all symptoms set up by its predecessor have subsided. The users of the vaccine should be thoroughly familiar with the principle and details of Wright's opsonic theory, and know the indications and contra-indications of the various vaccines, and should be conversant with the symptoms of the reaction of an overdose.

DISCUSSION

DR. ALEXANDER LAMBERT, New York City: Webb, of Colorado, found that it is not the chronicity of the case that makes so much difference as it is the position of the lesion and the site where the vaccines are injected. For instance, in a case of furunculosis or carbuncle, in which the lesion extends under the skin, injection into the subcutaneous tissue was effective, but where the subcutaneous tissue is involved, the best results are obtained by injecting vaccines into the skin cutaneously rather than subcutaneously.

DR. CHARLES G. STOCKTON, Buffalo: The dosage of vaccines in the treatment of infections from the colon bacillus is interesting, and I feel that the matter is still open for discussion as to whether the initial dose of 100 millions is not quite too large. I remember in a discussion which Dr. Billings opened here two years ago on that subject, he took the same ground as Dr. Stearns, of using a large initial dose and subsequently larger ones. I have seen bad results from the large dosage, and I think it is better to begin with a smaller dose. With the larger dosage a leukopenia occurs not infrequently, which continues for a considerable period.

DR. EGBERT LEFEVRE, New York City: Of late there has been a wave of overenthusiasm in the use of vaccines in the early stages of typhoid, so that we are seeing cases now in which a reactive condition is setting in. I have not seen an acute case of typhoid in the first week in which any marked beneficial effect was obtained from giving large doses of vaccine. I have, however, seen harm done. In relation to colon bacillus infection, especially in cases of pyelitis, I have had a rather unusual experience with a child whose symptoms disappeared, yet the condition, as far as the growth of the microorganisms is concerned, has been absolutely unmodified. The child ran a temperature of 104-105 F. After the use of the vaccines the temperature came down, and the child was practically well, so far as the symptoms were concerned, yet the urinary picture was almost identical with what it was during the height of the disease.

(To be continued)

Current Medical Literature

AMERICAN

Titles marked with an asterisk (*) are abstracted below.

Surgery, Gynecology and Obstetrics, Chicago

April, XIV, No. 4, pp. 315-424

1 *Destruction of Tumors of Urinary Bladder by High-Frequency Currents Known as Desiccation. B. A. Thomas, Philadelphia.
2 *Significance of Blood in Stools. J. M. T. Finney, Baltimore.
3 *Stereo-Arthrolysis. R. T. Taylor, Baltimore.
4 *Operative Treatment of Fractures. J. A. Blake, New York.
5 Esthiomene and Secondary Elephantiasis Vulva. A. Stein and W. J. Helman, New York.
6 Acapnia and Its Relation to Anesthetic Shock. W. C. Woolsey, Brooklyn.
7 Differences Between Surgery of Children and Adults. C. N. Dowd, New York.
8 Thyroid and Its Diseases. C. H. Mayo, Rochester, Minn.
9 Apoplexia Uteri. J. McFarland, Philadelphia.
10 Congenital Stenosis of Pylorus. C. L. Scudder, Boston.
11 *Method of Treatment for Habitual Dislocation (Congenital) of Patella. G. Robertson, Dunfermline, Scotland.
12 *Transplantation of Fibula. W. R. MacAusland and B. E. Wood, Boston.
13 Operative Method in Case of Intestinal Obstruction. A. Werelius, Chicago.
14 Tenaculum Forceps for Holding Towel to Protect Wound Margins. W. D. Berry, Muskogee, Okla.
15 Death Under Nitrous Oxid-Oxygen Anesthesia. J. Olow, Lund, Sweden.
16 Death from Nitrous Oxid and Oxygen Anesthesia. C. E. Boys, Kalamazoo, Mich.
17 Adenomyomatous Uterus Removed During Menstruation Showing Occurrence of Menstruation in Adenomatous Islets. W. B. Bell, Liverpool, England.
18 Treatment of Gunshot Wounds of Abdomen. F. B. Walker, Detroit, Mich.

1. Destruction of Bladder Tumors by Desiccation.—High-frequency desiccation in Thomas' opinion promises to be the method of the future for the treatment of papillomata of the bladder. The coil seems as effective as the static machine for the generation of the high-frequency current. The Oudin current possesses no selective action for pathologic tissue, as has been claimed, and will destroy normal tissue with equal readiness. Recurrences and metastases promise to be less frequent than by either suprapubic or intravesical incision, and, even should they occur, are far more amenable to a repetition of similar treatment.

2. Significance of Blood in Stools.—Finney protests against the prevailing tendency to jump to quick and easy conclusions drawn from certain insufficient clinical data. He endeavors to show that the simple presence of blood in the stools of a patient suffering from an otherwise obscure affection is by no means an evidence of pathognomonic importance. The conditions are so diverse as not to warrant any snap diagnosis, but on the contrary, to indicate the most careful, thorough and painstaking study and investigation. In order to fulfil these conditions, the aid of the despised laboratory man is indispensable. The adoption without his aid of such routine conclusion, as for instance, that this symptom must always mean ulceration of the mucosa somewhere along the gastro-intestinal tract, is to make a grievous mistake in theory, and one which may lead to disastrous results in practice.

V. 5
1912

3. Stereo-Arthrolysis.—After breaking up the ankylosis, Taylor pulls the bones apart as far as possible, after which the articulation is filled with a mixture of wax, 1, lanolin, 5, cooled down to about 108 F., after which the joint is held at an angle of 45 degrees until the paste hardens. In one of the knee cases cited a plaster-of-Paris cast was allowed to stay on for one week, then taken off and the leg manipulated under anesthesia. The result was not satisfactory; therefore a second operation was done. The patella was found to be freely movable. On manipulation of the joint a small amount of wax preparation could be squeezed out of the deeper portion of joint cavity. A greater part of the wax preparation that had been injected during the previous operation had been absorbed. Some of the articular cartilage of both femur and tibia had been removed at the previous operation, but these bones were in too close apposition when joint was opened the second time to permit of any marked degree of motion. There had been apparently some regeneration on the part of the femur; both the external and internal eroded condyles were found to have incapsulated in them the paste mixture which was injected at the previous operation; otherwise there were slight signs of regeneration.

The joint cavity was filled with a paste preparation consisting of the following proportions: Yellow wax, 1 part; mutton tallow, 2 parts; castor oil, 2 parts, with 15 grains to the ounce, by weight, of the mixture of bismuth subnitrate. This arthritic wax melts at 140 F. (60 C.) and is semisolid and begins to congeal at 128 F. (53 C.). The mixture is drawn up in the syringe again and again to get a uniform suspension of the bismuth, and for cooling purposes. The leg is held in full extension with traction while the paste is injected and remains in that position while the paste is hardening, after which the wound is closed with silver wire, etc. Three weeks after the second operation patient had between 40 and 50 degrees of voluntary flexion with little pain, and the remaining motion is simply restricted by voluntary muscular contraction. Other cases are cited. Two special points Taylor calls attention to in this method, and these are the entire absence of fever resulting from the unirritating nature of the interposed substance, nature tolerating it well. Second, voluntary active motion is soon possible, as it is practically painless and the range of motion, if sufficient fibrous and osseous tissue is removed at the time of the operation, should approximate normal limits as soon as the involuntary muscular rigidity from the patient's timidity will permit. The reformation of adhesions have not thus far been demonstrable, even under anesthesia.

4. Operative Treatment of Fractures.—Blake's present attitude in regard to operations for fracture of the shaft of the femur is that all should be plated that cannot be reduced and retained in reduction. A moderate amount of displacement is permissible in oblique fractures; but, to his mind, in transverse fractures, reduction without over-lapping is a prerequisite to non-operative treatment. Since union usually takes place in children, and since in them accommodation to deformity is more perfect, more displacement is allowable without recourse to operation.

11. Treatment of Habitual Dislocation of Patella.—In Robertson's method the semitendinosus tendon is isolated and cut as near its insertion as possible. A strip of the ligamentum patella is also detached and brought inward to meet the semitendinosus tendon. Those were then united to suture to each other and also to the inner fascial capsule of the knee, which is then plicated by several sutures. The leg is kept fully extended on a posterior splint for four weeks. The patella is prevented from becoming displaced outward during flexion of the knee.

12. Transplantation of Fibula.—The entire tibia in this case was removed because of extensive osteomyelitis, leaving the epiphysis at either end. Sinuses in the skin were dissected out and the periosteum brought together with catgut. The wound was drained above and below, and plaster-of-Paris bandage applied. The wicks were omitted in three days, and the patient made an uneventful recovery. The wound healed in the course of three weeks. The progress of healing was followed by means of Roentgen-rays, and no attempt at regeneration of new bone was apparent. The leg was flail-like, the only splint being that of the fibula which made the leg functionally imperfect. It was decided to transplant the fibula into the tibia, which was done. Nine months later the patient was walking about without the aid of crutches, there being about 1¼ inches shortening, and only a very slight limp.

Virginia Medical Semi-Monthly, Richmond

April 12, XVII, No. 1, pp. 1-28

19 After-Care of Abdominal Sections. J. T. Buxton, Newport News.
20 Diagnostic Value of Hemianopsia. T. A. Williams, Washington, D. C.
21 Myositis Ossificans Progressiva Following Uncinariasis. J. C. Walton, Richmond.
22 Mercurial Nephritis. H. H. Hazen, Washington, D. C.
23 Principles of Dietetic Management of Diabetes. E. G. Hopkins, Richmond.
24 Chronic Nasal Diphtheria. C. M. Miller, Richmond.

Southern Medical Journal, Nashville, Tenn.

April, V, No. 3, pp. 143-216

25 Treatment of Simple Fractures. D. Eve, Nashville.
26 Importance of Proper Shoes; Their Relation to Deformities of Foot and Body Efficiency. E. L. Scott, Birmingham, Ala.
27 Strains and Dislocations of Sacro-Iliac Joints. E. S. Hatch, New Orleans.
28 *Why Ligate Sac in Hernia? H. A. Elkourie, Birmingham, Ala.
29 Echinococcus Cyst of Liver; Report of Case. G. J. Winthrop, Mobile, Ala.
30 *Menstrual and Pregnancy History of 129 Females in a Hookworm Infected Factory Village. C. W. Stiles, U. S. P. H. and M.-H. S.
31 *Pellagra; Treatment by Direct Transfusion of Blood; Thirty-One Cases. H. P. Cole, Mobile, Ala.
32 *Introduction of Maize Into Italy and Pellagra. C. L. Alsberg, Washington, D. C.
33 Tuberculous Bladder. M. O. Shivers, Colorado Springs, Colo.
34 Series of Operations for All Forms of Appendicitis. E. G. Jones, Atlanta, Ga.
35 Benign Tumors of Stomach. E. A. Balloch, Washington, D. C.
36 Surgery of Intestines; Report of Fourteen Cases. E. M. Prince, Birmingham, Ala.
37 Surgical Treatment of Bright's Disease. S. Lloyd, New York.
38 Adenoids; Their Rôle in Prophylaxis in Diseases of Children. J. J. King, New York.

28. Why Ligate Sac in Hernia?—There is no especially good reason in Elkourie's opinion why we should ligate the sac in hernia. Not, he says, because the sac is a foreign and a harmful piece of tissue to leave intact in the human economy; certainly not. Not because we gain any appreciable advantage in the removal of the sac; and most assuredly not because we save any time; then why in the name of common sense do we ligate the sac? Elkourie maintains that the sac should never be removed, with the possible exception of diseased conditions pathologically affecting the sac itself; a condition he has never seen either in his own cases or in the cases of others. He has done within the last six years twenty-two hernial operations without removing the sac, and his results have been excellent. He has not had a single recurrence. He believes that the removal of the sac has been mostly due to the impress of tradition and the force of long established custom and not because it was, or is, a necessary procedure. The method he pursues, is as follows: Make the usual incision through the skin and superficial fascia, and having gone through both the external and internal oblique, finally expose the sac. Open the sac and deal with the contents, or hernia, according to its nature and the condition it is in. Do not disturb the cord in the least, nor attempt to break up any real or imaginary adhesions that may exist between the sac and cord. Then introduce a purse string suture through the neck of the sac, up in the ring which is tightly and firmly drawn. Then scarify the internal surface of the sac either with a rough strip of gauze or a needle; then take three or four sutures longitudinally introduced through both layers of the sac in order to insure firm adhesions. Elkourie then sutures the transversalis and internal oblique to the lower shelves of Poupart's ligament. The external oblique is sutured to the upper shelves and then the superficial fascia and skin are approximated.

30. Abstracted in THE JOURNAL, Dec. 2, 1911, p. 1941.

31. Also appeared in *British Medical Journal*, November, 1911.

32. Introduction of Maize Into Italy and Pellagra.—The opinion that the coincidental appearance of pellagra and the

introduction of maize from America has been proved a myth, Alsberg says, is hardly, as yet, warranted. It may be a myth, but proof is lacking.

American Journal of Gastro-Enterology, Philadelphia

April, I, No. 4, pp. 1-54

39 Cancer. E. J. Asnis, Philadelphia.
40 Gastric and Duodenal Ulcer Considered from Medical Standpoint. C. R. Jones, Pittsburgh.
41 Prostatic Enlargement as Cause of Constipation. J. M. Anders, Philadelphia.
42 Tryptophan Test. L. Breisacher, Detroit.
43 Kidney Calculus (Quiescent) in Relation to Gastro-Enterology. K. B. Page, New York.
44 Duodenal Carcinoma. A. Bassler and J. P. Grant, New York.
45 Relation Between Gastro-Intestinal Disturbances and Gynecologic Disorders. J. C. Hirst, Philadelphia.
46 Case of Tuberculosis of Kidney Manifesting Gastric Symptoms. H. B. Mills, E. J. Asnis and R. Boyer, Philadelphia.
47 Diseases of Stomach and Intestines. L. Brinton, Philadelphia.

Archives of Internal Medicine, Chicago

April 15, IX, No. 4, pp. 401-524

48 Linguatula Serrata (Larva) in a Native Central American. S. T. Darling and H. C. Clark, Ancon, C. Z.
49 Effect of Pressure-Lowering Drugs and Therapeutic Measures on Systolic and Diastolic Pressure in Man. C. H. Lawrence, Boston.
50 *Cause of Malarial Anemia and Intravascular Migrations of Malarial Parasite. M. Rowley-Lawson, New London, Conn.
51 *Glycyltryptophan and Tryptophan Tests for Cancer of Stomach. C. H. Sanford and J. Rosenbloom, New York.
52 *Artificial Pneumothorax as Treatment of Pulmonary Tuberculosis. S. Robinson and C. Floyd, Boston.
53 *Chronic Focal Infections and Their Etiologic Relations to Arthritis and Nephritis. F. Billings, Chicago.
54 *Chronic Oral Infections. T. L. Gilmer, Chicago.
55 Bacteriologic and Experimental Observations on Focal Infections. D. J. Davis, Chicago.
56 *Parasitic Amebas in Intestine of Man, with Study of Protozoa Found in Intestines of Healthy Men in Southern United States. E. R. Whitmore, Fort Barrancas, Fla.
57 *Practical Value of Noguchi's Luetin Reaction. H. F. L. Ziegel, New York.
58 *Blood-Pressure in Cheyne-Stokes Respiration. L. J. Pollock, Hospital, Ill.

50. Cause of Malarial Anemia.—The grave and rapid anemia occurring in some malarial infections Rowley-Lawson claims can easily be explained as due to the migration of parasites of all ages from corpuscle to corpuscle. The evidence presented in this paper would seem to justify this belief. The most important fact supporting it is the frequent finding of parasites in similar stages of development; (1) free, with varying amounts of pigment included in their substance; (2) on healthy corpuscles (corpuscles showing abundant hemoglobin and no evidence of degeneration); (3) on corpuscles which show conclusive evidence of degeneration. The fact that parasites in each and every stage of development may be seen on healthy corpuscles would seem to be conclusive evidence of migration. For a parasite could not receive nourishment and secrete pigment (if that pigment be derived from the red corpuscle) and complete its life cycle on a single corpuscle without that corpuscle showing conclusive evidence of degeneration. The fact that young parasites are seen on corpuscles with an almost complete loss of hemoglobin, would seem to indicate that the parasite must migrate or perish for lack of food. Rowley-Lawson finds still another support for her hypothesis in cases of multiple infection, in which three or four young parasites (sometimes six or seven) are attached to a corpuscle. She says one can hardly expect that all these youngsters can grow up on a single corpuscle, and if they are not to perish, they must migrate.

51. Tests for Stomach Cancer.—The authors agree with Weinstein that the use of glycyltryptophan is unnecessary for the detection of tryptophan-producing peptidase in gastric contents, but their findings do not permit them to believe that the tryptophan test is a reliable one for gastric carcinoma.

52. Treatment of Pulmonary Tuberculosis.—Twenty-eight cases of phthisis have been subjected by Robinson and Floyd to artificial pneumothorax therapy within the past two and one-half years. With three exceptions all of the cases have been advanced ones which had previously failed to respond to methods of therapeutic hygiene. The last eight cases have been treated by nitrogen injection too recently to draw conclusions as to the ultimate result of the treatment. It is said, however, that with the exception of the three cases in which a pleural space could not be established, a distinct relief of symptoms has been the immediate result of the lung compression in practically all of the reported cases of our series. The tuberculous process has been brought to a standstill in at least six of the cases which have been under constant observation and continued treatment. In two instances there has been cessation of all activity in both lungs. The promptness and willingness with which most of the patients responded to summons for repeated injections were regarded as conclusive evidence at least of the symptomatic relief attending the therapy. This might have been credited in part to psychic influences had there not been a corresponding improvement in the objective signs revealed by repeated examinations.

From experience with the earlier cases the authors have been led to the employment of more frequent injections. They believe that this factor is of paramount importance. The completeness of the compression is thus more nearly attained; furthermore, the partial mobilization of the lung permitted by the absorption of the nitrogen is promptly prevented by its early renewal. The fatalities recorded were due to the unarrested progress of the disease in certain of the more advanced cases. In no instance was death referable in any way to the pneumothorax therapy. They believe that "pleural eclampsia" (Forlanini), or a reflex inhibition of the heart through vagus irritation from the pleura, is a danger to be considered in this treatment as in other therapy requiring thoracentesis, but that it may always be prevented by anesthetizing the pleura as described in a previous paragraph. They have experienced no accidents, and believing that they are always avoidable, conclude that pneumothorax therapy is a safe procedure.

53 and 54. Abstracted in THE JOURNAL, Dec. 30, 1911, p. 2169.

56. Parasitic Amebas in Intestine of Man.—Whitmore believes that the finding of parasitic amebas and flagellates in the intestinal tract in cases of pellagra is purely coincidental. The parasites have nothing to do with the disease.

57. Noguchi's Luetin Reaction.—The luetin test is regarded by Ziegel as a simple, harmless procedure, consisting essentially of the intradermatic injection of a carbolized emulsion containing dead *Spirochæta pallidæ*. The reaction is negative in normal and non-syphilitic individuals and in various diseases including tuberculosis, pneumonia, typhoid fever, malaria, carcinoma, eczema and psoriasis (Noguchi). The test can already be accepted as of considerable negative value. As compared with the von Pirquet reaction, the latter gives more than 50 per cent. positive reactions in apparently non-tuberculous adults, whereas the luetin test is constantly negative in both adults and children who are clinically and serologically non-syphilitic. The positive value of the test appears to be more limited. A positive reaction is rarely obtained in primary syphilis and inconstantly in secondary syphilis. Noguchi found the test unsatisfactory in parasyphilitic conditions. Whether the negative reactions usually obtained in patients practically cured of syphilis indicate lasting suppression of the disease remains to be determined. In hereditary and tertiary syphilis, however, Noguchi obtained positive reactions in more than 90 per cent. of the cases. According to Martin Cohen's studies, in eye affections supposedly syphilitic in etiology, the reaction corresponds with the clinical evidence or with the Wassermann reaction in 76⅔ per cent. of cases. In a number of Cohen's cases in which negative Wassermann reactions were presumably due to recent treatment, the luetin test was positive.

58. Blood-Pressure in Cheyne-Stokes Respiration.—It would seem from Pollock's observations that the mechanism of the changes of blood-pressure in Cheyne-Stokes respiration associated with increased intracranial tension is as follows: The intracranial tension being higher than the general blood-pressure, cerebral anemia exists and apnea is present. The vasomotor centers are automatically stimulated to raise the general blood-pressure in an effort to produce an equilibrium between it and the intracranial tension. As the general blood-pressure rises respiratory movements recommence; at their height the vasomotor centers are no longer stimulated and the general blood-pressure again falls and the respiratory movements diminish and finally cease.

V. 5
1912

Washington Medical Annals, Washington, D. C.

March, XI, No. 1, pp. 1-83

59 Civilization, Constipation, Reversion. A. F. A. King, Washington, D. C.
60 Early Symptoms and Ocular Findings in Tumor of Brain. O. Wilkinson, Washington, D. C.
61 Operation for Tumor of Brain. W. P. Carr, Washington, D. C.
62 Thalmic Tumor in Ventricles with Frontal Symptoms. T. A. Williams, Washington, D. C.
63 Leprosy. D. S. Lamb, Washington, D. C.
64 Case of Syringomyelia, Said to Have Shown Itself After Electric Shock. T. A. Williams, Washington, D. C.
65 Dietetics; General Principles of Feeding, Particularly in Gout. P. S. Roy, Washington, D. C.
66 Feeding in Infancy. F. Leech, Washington, D. C.
67 Diet in Vasomotor Disturbances of the Upper Air Tract. C. W. Richardson, Washington, D. C.
68 Malformations and Monstrosities in Army Medical Museum. D. S. Lamb, Washington, D. C.

Journal of Nervous and Mental Diseases, Lancaster, Pa.

April, XXXIX, No. 4, pp. 217-288

69 *Height and Weight of Feeble-Minded Children in American Institutions. H. H. Goddard, Vineland, N. J.
70 Acute Delirium in Psychiatric Practice, with Special Reference to So-Called Acute Delirious Mania (Collapse Delirium). E. L. Hanes, Rochester, N. Y.
71 Sclerotic Foci in Cerebrum of Infant. J. F. Munson, Sonyea, N. Y.

69. Height and Weight of Feeble-Minded Children.—Goddard's findings seem to warrant the conclusion that there is a remarkable correlation between physical growth and mental development. The low grade (idiot) has not only a disturbed brain function but his entire organism is disarranged and growth processes upset. In the imbecile the same is true but to a less extent. In the moron we have the interesting phenomenon of practically normal growth during the immature years, but an arrest of growth earlier than in normals. All defectives are heavier at birth than normals. This would once have been thought to be correlated with the defect through greater difficulty of birth necessitating the use of instruments with resulting injury. But in the light of Goddard's findings in heredity this is seen to be without force. Sex differences are less and less marked as one goes down the grades of defect.

Journal of Oklahoma State Medical Association, Muskogee

April, IV, No. 11, pp. 443-484

72 Treatment of Minor Surgical Injuries and Diseases. C. Blicksenderfer, Shawnee.
73 Bronchopneumonia. T. C. Sanders, Shawnee.
74 Abscess of Spleen. F. L. Carson, Shawnee.
75 Indications for Tonsillectomy. J. M. Stooksbury, Shawnee.
76 Auto-Intoxication. J. M. Byrum, Shawnee.
77 Immunity. J. E. Hughes, Shawnee.
78 Differential Diagnosis of Benign and Malignant Tumors. J. A. Walker, Shawnee.

Boston Medical and Surgical Journal

April 28, CLXVI, No. 18 pp. 583-618

79 Aims and Purposes of Robert Dawson Evans Memorial. F. C. Richardson, Boston.
80 Significance to Neurology of Robert Dawson Evans Memorial. J. J. Putnam, Boston.
81 Significance of Homeopathic Foundation for Clinical Research and Preventive Medicine. E. E. Southard, Boston.
82 *Symptomatology of Chronic Duodenal Ulcer. H. S. Bowen, Boston.
83 Diagnosis of Solitary Kidney, Blocked Ureter and Kidney Inactive by Reason of Previous Disease. E. Garceau, Boston.
84 *Mental Hygiene and the Special Child; Chapter in Social Pathology. B. C. Bowning, Worcester, Mass.
85 Two Cases of Precocious Cerebrospinal Syphilis, One Occurring After Salvarsan, the Other with Post-Mortem Findings. A. Myerson, St. Louis.

82. Symptomatology of Chronic Duodenal Ulcer.—Eight cases are reported by Rowen. With the exception of the one that came to autopsy, he has seen them from their early symptoms and treated them medically and surgically. Their summary shows chronic duodenal ulcer without other lesions three times; once ulcer accompanied by chronic appendicitis, and once its symptoms were confused by a marked osteo-arthritis of the spine; another ulcer was found at autopsy. On two occasions Rowen came on unsuspected advanced carcinoma of the stomach and once found chronic adhesive appendicitis. He has been struck with the uncertainty of finding this condition and of the reasonable certainty of discovering some other pathologic change. To most physicians the upper abdomen, until within the last few years, has been a region on the borderland of mystery where there were things which lay beyond the scope of our analysis. Rowen, however, believes that nowadays, when careful medical treatment of stomach trouble appears to do no good, and when after conscientious study one feels that there is something organically wrong, he should have no hesitation in advising a laparotomy.

84. Mental Hygiene and Special Child.—Downing emphasizes that neither heredity, environment nor personal choice alone will explain the facts of social life. The tendency of heredity is to produce an environment which perpetuates that heredity. Let us have, he says, preventive education and preventive medicine working hand in hand. Open-air hospital schools for neurotic children are needed in our cities, to be a part of our school system. This should have financial aid from parents, philanthropists and the state.

New York Medical Journal

April 20, XCV, No. 16, pp. 781-832

86 Etiology of Perineal Lacerations. J. C. Edgar, New York.
87 Use of Spinal Fluid (Auto-Therapy) in Treatment of Chronic Syphilides, Especially of Central Nervous System. W. Browning and W. Lintz, Brooklyn.
88 Report on Activity of Department of Physical Therapy of Mount Sinai Hospital Dispensary. H. F. Wolf, New York.
89 Analysis of Results of Rhizotomy in Treatment of Spastic State of Cerebral Diplegia. L. P. Clark and A. S. Taylor, New York.
90 School and the Physician. G. Straubenmuller, New York.
91 Recurrence of Syphilitic Manifestations After Combined Salvarsan and Mercurial Treatment. L. Neuwelt, New York.
92 Summary on Technics Employed in Administration of Salvarsan. S. H. Likes and H. Schoenrich, Baltimore.
93 Ranula. L. G. Hanley, Buffalo.
94 Study of Physiology and Pathology of Skeleton on Oral Extremity of Thorax (Stethographic Method). C. M. Desvernine, Havana, Cuba.

FOREIGN

Titles marked with an asterisk (*) are abstracted below. Clinical lectures, single case reports and trials of new drugs and artificial foods are omitted unless of exceptional general interest.

Practitioner, London

April, LXXXVIII, No. 4, pp. 489-624

1 Medical Aspects of Life Insurance. Sir R. D. Powell.
2 Diagnosis and Operative Treatment of Carcinoma of Vulva, Vagina and Uterus. V. Bonney.
3 Nasal Catarrh. W. Stuart-Low.
4 Pneumococcal Peritonitis in Children. S. Barling.
5 Intestinal Stasis in Children and Its Surgical Treatment. L. E. B. Ward.
6 Gridiron Incision; Where to Make It and How to Enlarge It. A. Maclennan.
7 Case of Pulmonary Gangrene; Operation; Recovery. W. Gordon.
8 Relation of Cardiac Systole to Arterial Tension. L. T. Thorne.
9 Cases Illustrating Importance of Examining Scrotum in Tumors of Abdomen. T. S. Tirumurti.
10 Simplicity of Major Surgery. H. G. Webb.

British Medical Journal, London

April 6, I, No. 2675, pp. 765-816

11 Action of Tuberculin and Its Application to Treatment of Different Forms of Tuberculosis. C. Riviere.
12 *Pulmonary Tuberculosis Treated by Continuous Antiseptic Inhalation. D. B. Lees.
13 *Perez' Sign and Audible Motor Crackles. W. Ewart.
14 Influence of Strong, Prevalent, Rain-Bearing Winds on Course of Phthisis. W. Gordon.
15 Genesis of Dicrotic Pulse-Wave. D. W. Samways.
16 *Blood-Pressure Readings in Cases of Auricular Fibrillation. M. D. Silberberg.
17 Calcareous Degeneration of Myocardium. J. A. M. Cameron.
18 *Results of Treatment of Syphilis with Salvarsan at Royal Naval Hospital, Haslar. T. B. Shaw.

12. Pulmonary Tuberculosis.—A third series of twenty cases, making a total of seventy patients treated by the method of which full details were given in a previous paper (abstracted in THE JOURNAL Jan. 8, 1910, p. 162), is reported by Lees.

13. Perez' Sign.—Perez' sign consists essentially in the production of sounds audible over the upper thoracic surface on actively or passively moving the arms at the shoulder-joint, and particularly on raising or lowering them. It was originally described by him, in a case of mediastino-pericarditis, as due to intrathoracic sounds elicited by these movements in the upper part of the chest. The chief recommendation of the method are its simplicity when conducted with the binaural stethoscope and the amount of information which it is capable of furnishing. Ewart suggests to clinicians that they make a rule of combining the articular with the upper

thoracic examination in all cases yielding any stethoscopic sounds, and of noting the result. The most convenient technic is firmly to steady with one hand the cup of the stethoscope over the front of the head of the humerus, which it fits well, or in dorsal examinations over its side or over the flat acromial surface of the spine of the scapula, while the other hand grasps the elbow and imparts to the humerus a full range of strictly passive movements. The sternoclavicular examination presents no difficulty. For articular conditions, as this is by far the finest test that can be applied, the examination should be *de rigueur*. A negative result from auscultation and from manipulations would be the quickest as well as the only conclusive evidence of absolute soundness. Should, however, any articular sounds be heard, continue the movement, and simply shift the chest-piece to the supraclavicular and infraclavicular regions, a matter of a few seconds, and well worth while if any unexpected sounds should happen to be heard. In all doubtful cases submit apical results, whether positive or negative, to the articular test. Perez taught that there are lesions (in Ewart's experience chiefly pleural, but sometimes pulmonary) which may give sounds under the mechanical traction of movement, and not always under that of deep breathing only; and the no less important fact that some of the sounds audible over the apices may be merely conducted from the sternoclavicular or shoulder joints.

16. **Blood-Pressure Readings in Auricular Fibrillation.**—The readings taken by Silberberg from eight patients, all of whom were typical examples of cardiac irregularity due to auricular fibrillation, show the wide range of blood-pressure which an individual case of auricular fibrillation may possess. The blood-pressure reading of smallest beats varied from 80 to 160; maximum blood-pressure ran from 100 to 210. This variation Silberberg says is of importance, because in the cases in which it occurs single observations of blood-pressure, taken in the ordinary manner, possess only a restricted value as an index; the error introduced in continued and comparative observations, where each observation is confined to a reading of the most forcible beats, is also very considerable.

18. **Salvarsan in Syphilis.**—The general plan of treatment at present in use at Haslar is as follows: Immediately a diagnosis of syphilis is made, one injection of salvarsan is given, followed eight to twelve days later by a second. When discharged to duty no further treatment is recommended in the absence of symptoms unless the Wassermann reaction becomes positive. In cases of early secondary syphilis two injections of salvarsan are given as in cases of primary syphilis. Further treatment in the absence of symptoms is based on the Wassermann test. From the results, even in these early secondary cases, Shaw believes two injections will in many cases cure the disease; but unless the Wassermann test can be carried out about once a month mercurial treatment supplemented with iodids is recommended.

Sei-I-Kwai Medical Journal, Tokyo

March 10, XXXI, No. 3, pp. 132-150

19 *Effect of Phenyl Urea on Tetanus Toxin and Tetanus in Laboratory Animals. H. Sewaki.

19. **Phenyl Urea.**—Sewaki's experiments show that tetanus symptoms do not occur when the test animals are kept under influence of phenyl urea. In other words, if the action of phenyl urea is maintained during the incubatory stage of tetanus poisoning, its manifestations will be prevented.

Lancet, London

April 6, I, No. 4623, pp. 911-968

20 Modern Views on Significance of Skin Eruptions. H. G. Adamson.
21 *Pharmacology and Therapeutics of Lecithin and Phytin. W. Bain.
22 *Case of Angina Abdominis. Sir L. Brunton and W. E. Williams.
23 Acute Poliomyelitis and Allied Conditions. E. F. Buzzard.
24 *Congenital Malposition of Gall-Bladder. A. J. Walton.

21. **Pharmacology and Therapeutics of Lecithin and Phytin.**—Bain's clinical experience leads him to look on lecithin as a valuable drug in cases of anemia and debility. He regards it as a metabolic stimulus, for he can hardly conceive that the small amount of extra nitrogen and phosphorus administered in doses of a few grains daily can act as a tissue-former in any substantial degree. Its beneficial effect on the nervous system he regards as secondary to improvement in general nutritive condition, and not because lecithin is a "brain food." Its most striking effect is seen in the blood, the red corpuscles, white corpuscles (especially the lymphocytes) and hemoglobin percentage all being increased. Illustrative experiments in rabbits are given in detail. Although there is some evidence that phytin (inosite phosphoric acid ester), an important phosphorized constitutent in vegetable tissues, may be of some value in herbivora, Bain says the evidence in favor of its utilization in carnivora and in man is either negative or conflicting. His experiments on rabbits were not sufficiently encouraging to warrant him in testing its usefulness clinically. The enzyme phytase responsible for the cleavage of phytin, though present in plants, appears to be absent in animals; he suggests that it is therefore probable that if cleavage occurs in animals it is due to phytase contained in the food taken. The paper also discusses such questions as the comparative therapeutic value of inorganic and organic compounds of phosphorus, and the possible way in which minute quantities of certain constitutents of the diet may influence nutrition.

22. **Angina Abdominis.**—The case reported by Brunton and Williams was one in which the patient, aged 63, suffered from severe pain which came on when he began to walk. In this respect the pain resembled that of angina pectoris, but it differed in its position as it was most severe in the umbilical region. It was at first confined to the umbilical region and was attributed to flatulence, but it gradually increased in severity and extent so that it spread all over the front and back of the chest and caused perspiration to break out over his body. His sister, aged 64, unmarried, suffered during the past seven years from abdominal pains similar in every respect to the pains felt by the brother. They were felt in the same spot and came on after walking. As most of the cases recorded by others have shown symptoms of locomotor ataxia, it seemed advisable to ascertain the condition of the knee-jerks and of the pupils in the patient and his sister. This was done by Williams, who found the knee-jerks of the patient's sister normal, but the pupillary reflexes sluggish, with pupils much contracted beyond what they ought to be. The patient's knee-jerks were abnormally active, the pupils a good deal contracted and almost insensible to a bright light.

24. **Congenital Malposition of Gall-Bladder.**—The gall-bladder, as will be seen in this case, was situated on the left lobe, but was normal in shape and attachment. The neck of the bladder was directed toward the right instead of toward the left side, and there was a well-marked Hartmann's pouch just before the origin of the cystic duct. The fundus reached to, but did not project beyond, the free margin of the liver. The gall-bladder was well to the left of the umbilical vein but the area between it and the structure, which presumably should be called the quadrate lobe, was small, so that in life the gall-bladder lay close to the falciform ligament, and was, when viewed from the right side, wholly covered by this structure. If, therefore, symptoms of disease of the gall-bladder or some neighboring structure had arisen, which necessitated exploration through the usual incision traversing the right rectus, the gall-bladder would, at operation, have been invisible, and even if the liver had been pulled well over to the right it would have remained hidden beneath the falciform ligament, which would have been stretched across it. The cystic duct passed downward to join the hepatic ducts in the normal manner, and all of them showed a well-defined lumen. The factor of importance in this case was, however, that no other deformities were discoverable, and therefore from the point of view of the anatomic structure there was no reason why the child should not have reached adult life.

Journal of Tropical Medicine and Hygiene, London

April 1, XV, No. 7, pp. 97-112

25 *Deep Suppuration of Thigh Associated with Peculiar Bacillus. H. H. Scott.
26 Case of Suppuration in Encysted Hydrocele of Spermatic Cord. J. R. D. Webb.
27 Gloriosa Superba Poisoning. L. G. Fink.

25. **Deep Suppuration of Thigh.**—Three cases are reported by Scott of a hitherto undescribed affection in which he found an organism resembling *B. mycoides*. The first patient had always been in good health until two weeks before she came to the hospital when she felt a burning in the skin of the right thigh posteriorly. The burning increased, and the part became swollen and hard, with great pain and fever. On admission she had a temperature of 102 F., and there was a hard brawny swelling in the skin of the thigh, reaching from the buttocks to the lower third of the thigh behind; she complained of great pain, and could not sleep. Deep incisions were made, but no pus found. Temperature, 98.4 F. in the mornings, rising to 102 F. in the evenings. This continued for a week, when another incision was made down to the bone, and a large deep-seated abscess containing not less than a quart of slate-colored pus—no odor—was evacuated. The temperature remained normal afterward. There was no abrasion of the skin when she was admitted, and no discoloration, and she says that she could find none before coming to the hospital. The second and third cases were similar clinically but terminated fatally. Smears were made of the heart-blood, spleen pulp and bone marrow in the last two cases, and of the pus and cultures of the blood drawn aseptically by pipette from the heart cavities, of the spleen pulp, of the pericardial fluid, of the marrow, of the gall-bladder contents, and of the pus. Whereas, in the second case the culture from the heart blood remained sterile, from that of the last case a growth was obtained of a new bacillus together with a few streptococci and staphylococci. Similar growth resulted with the spleen and marrow. From the pus the organism was readily cultivated, though, as would be expected, the contamination by staphylococci and streptococci was greater. From the serous fluid only the bacillus described was obtained, no pyogenic organisms; while, lastly, from the contents of the gall-bladder no growth was obtained. The only bacillus which resembles it at all closely is, *Bacillus mycoides*; but there are distinct differences between the two. Thus *mycoides* does not give rise to acidity in milk, renders broth turbid, does not produce indol, and is not pathogenic. These three points are all reversed with the bacillus described. Scott believes that the condition is one of bacteriemia with arrest locally of the organism at least in part in the marrow of one of the longer bones and formation of pus when opportunity for secondary contamination occurs; that happened in five to six days in the first and third cases; the second died, probably from an associated enteric fever, too soon after the incision for pus to form. If the organism has not been previously described and christened, Scott suggests tentatively for it the name *Bacillus seroficus*, since the most striking feature of each of the cases (apart from the presence of the bacillus in the blood-stream) was the swelling set up apparently by the enormous quantity of thin serous fluid.

Journal of Laryngology, Rhinology and Otology, London

April, XXVII, No. 4, pp. 185-240

28 International Collective Investigation of Ozena. A. B. Kelly.
29 Appeal for Undertaking International Collective Investigation of Ozena. A. Alexander.
30 Teaching of Otology and Laryngology in Italy. F. Massei.
31 Analysis of 123 Consecutive Cases in Which Operations Were Performed for Relief of Mastoid, Labyrinthine and Intracranial Complications of Suppurative Otitis Media. J. S. Fraser and J. K. M. Dickie.

Archives Générales de Chirurgie, Paris

March 25, VI, No. 3, pp. 249-372

32 *Congenital Dislocation of the Hip-Joint. (La luxation congénitale de la hanche.) P. Le Damany. Commenced in No. 2.
33 *Bullet Wound of Spinal Cord. (Plaie de la moelle et syndrome de Brown-Séquard.) J. Ducuing and P. Rigaud.
34 *Tardy Traumatic Deformity of Spine. (Déformations vertébrales traumatiques tardives—maladie de Kümmell-Verneuil.) P. Mauclaire and Burnier.

32. **Congenital Dislocation of the Hip Joint.**—Le Damany remarks that the difficulty of keeping the children clean is the great drawback to applying orthopedic appliances to very young children, but that this is far outbalanced by the superiority of the results when treatment is begun early, when the child is from 1 to 3 years old. The children wearing the appliance should use a special flat chamber-pot; those that cannot be trained to use this vessel should sleep in little hammocks with large meshes through which the excreta fall into a vessel below. He gives sixteen illustrations of the various orthopedic apparatus and radiographic findings, stating that he has been able to realize an anatomic cure in 97 per cent. of 426 children treated on these principles. In all the bilateral cases the children were under 7 and in the unilateral cases under 11. In the 300 cases between his very earliest and very latest series, the cure was anatomic in 291; in three other cases the head of the femur was left a little too high on one side, and in four cases the outcome was a failure on one or both sides. He found that the functional outcome was perfect in from six months to two years after the close of the treatment in children from 1 to 4 years old. Functional training by weight-bearing is an important factor in the treatment, which aims at first to immobilize the hip joint and later to overcome the twisting of the femur, on the Paci-Lorenz principles, utilizing the action of the muscles to twist the femur back into place.

33. **Bullet Wound of the Spinal Cord.**—Ducuing and Rigaud report a case of bullet wound, the bullet passing through the fourth right interspace and being found at necropsy close to the twelfth dorsal vertebra, the patient succumbing in a few days to intrameningeal hemorrhage. The lesson taught by the case is the liability of the bullet to change its position several times.

34. **Tardy Traumatic Deformity of the Spine.**—Mauclaire and Burnier report two cases of the Kümmell-Verneuil group of symptoms developing from a month to a year after an accident injuring the spine, the pains then returning as severe as at the time of the accident, and radiating to the interspaces, abdomen and legs, and possibly with exaggeration of the reflexes, muscular contractures, and paresis of certain groups of muscles. But the main feature is a large, broad hump which develops at this time. In one case described scoliosis was pronounced while there was no kyphosis. Differentiation of the true nature of the trouble is often difficult, but treatment should be the same as for Pott's disease. It is important in prophylaxis that the patient should stay in bed for some time after any accident to the spine. It is generally possible to correct the kyphosis in part, but orthopedic appliances may have to be worn for months and years. In conclusion ninety-eight other cases from the literature are summarized; the accident was a fall from a step-ladder or on the stairs in most of the cases; in one a soldier took up a heavy weight on his back and felt a severe pain in the lumbar region; he kept in bed for a week and then resumed active duty. Several months later it was noticed that he had developed a hump, but there were no motor disturbances.

Archives Générales de Médecine, Paris

March, XCI, No. 3, pp. 197-284

35 *Light Cauterization of the Nose in Treatment of Asthma. (La muqueuse nasale et les centres pneumostatiques.) P. Bonnier.
36 *Thyroid Treatment of Asthma. (Pathogénie de l'asthme thyroïdien et ovarien.) L. Lévi.
37 Pseudo-Effusion Between the Lobes of Tuberculous Lung. (Pseudo-épanchements de l'interlobe et interlobites mixtes chez les tuberculeux.) C. Sabourin.
38 Breathing Exercises in Chronic Disease of the Air Passages. (Exercices de respiration dans les maladies chroniques des voies respiratoires des adultes.) G. Rosenthal.

35. **Light Cauterization of the Nose in Treatment of Asthma.**—Bonnier explains the effect of physical measures, revulsion, cataplasms, etc., by the effect from them on the centers regulating the region which is the seat of the morbid process. All such measures and therapeutics in general, he declares, act essentially on the regulating centers and these in turn act on the disease process. It is like a telephone system; we speak through the telephone to our neighbor across the street, but it is by the intermediation of the central office blocks away and long stretches of wire. The aim in treatment is to stimulate and restore normal conditions in the central office, the regulating centers. He has found that in asthma it is possible to act on the morbid conditions in the air passages by stimulating the bulbar centers governing them, and that an effectual means to stimulate these centers is by mild cauterization of certain points in the nose. He warns that the aim is not to treat the nose, but the asthma, and consequently cauterization

should be restricted to only what is needed. The points to be cauterized he says are known to every child who has ever tried to make another sneeze by tickling his nose with a feather. Tickling these points causes sneezing, coughing or lacrimation. Pressing on the nose just below its bony framework will arrest a sneeze if it is not too far on its way; pressure by the tongue on the inside of the upper jaw will also compress the nerve involved and arrest the sneeze. With the tip of the cautery—the current not turned on—the nose is gently explored until a point is found which can not be touched without the patient's lid quivering or lacrimation. As soon as this point is located, the current is turned on for slight cauterization, very lightly done. The stimulus that causes sneezing is a slight one; a blow with the fist does not make one sneeze. The nerves respond to a slight, gentle stimulus when they remain passive under a powerful attack on them. Bonnier has applied this treatment in 100 cases of asthma and has permanently cured 75 per cent. and possibly some of the others, the ultimate outcome not being known in all cases. In some of the cases the asthma was of forty years' standing and in a number it was of the hay-fever type. One in this latter group had suffered for twenty-two years with recurring hay fever but has had no recurrence since this gentle cauterization in 1908. In some of his cases the patients were cured at the same time of phobias, depressions, vertigo, and respiratory, digestive and genital disturbances, all these evidently sharing the reflex nature of the asthma. One patient was a physician who is stated to have had as sequelæ of cholera twenty-five years before almost uninterrupted mucomembranous enteritis, dyspepsia, asthma and glycosuria amounting to 15 gm. A single cauterization of the points in the nose inducing the reaction in the eyes, was followed by subsidence of all the symptoms of the three affections and there has been no recurrence to date, over four years. The mechanical principles involved are explained in some diagrams.

36. **Thyroid Treatment of Asthma.**—Lévi found that thyroid treatment arrested permanently all tendency to asthma in a number of his patients; in some the asthma was of twelve or fifteen years' standing. He published nine such examples last year, and has since encountered fourteen more. Migraine and other symptoms of the neuro-arthritic diathesis are common in the patients amenable to this treatment, and they yield with the asthma to medication to remedy the defective thyroid functioning.

Bulletin de l'Académie de Médecine, Paris

March 19, LXXVI, No. 12, pp. 213-260

39 *Lice as a Factor in Phlyctenular Conjunctivitis. (Etude sur l'étiologie de la conjonctivite phlycténulaire.) De Font-Reaulx and R. Blanchard.

40 *Treatment of Syphilis in Pregnant Women. (Traitement de la syphilis chez les femmes enceintes.) M. Pamard.

39. **Lice and Conjunctivitis.**—De Font-Reaulx found evidences of the presence of lice in 142 of his 167 cases of phlyctenular conjunctivitis observed in 1905 to 1908, and in the other cases there was strong suspicion of phthiriasis. On the other hand, he found evidences of lice only in 31 per cent. of his child patients with other eye affections.

40. Summarized in the Paris Letter in THE JOURNAL, April 13, p. 1127.

Presse Médicale, Paris

March 23, XX, No. 24, pp. 237-248

41 The Evolution of Our Knowledge of Tuberculosis. (L'évolution historique de la phtisiologie. Le concept moderne de la bacillo-tuberculose. Les bacillaires, les tuberculeux, les phtisiques.) L. Landouzy.

42 *Valvular Disease of Gouty Origin. (Valvulite uricémique.) M. Chiray and J. Bailleul.

March 27, No. 25, pp. 249-256

43 *Toxicity of the Bile. H. Roger.

44 *Tearing Out the Intercostal Nerves in Treatment of Tabetic Gastric Crises. (L'opération de Franke dans un cas de crise gastrique rebelle au cours du tabes.) A. Cade and R. Leriche.

March 30, No. 26, pp. 257-268

45 *Operative Treatment of Spastic Paralysis. (Nouvelle opération pour le traitement des paralysies spastiques.) A. Stoffel.

46 *Congenital Dislocation of the Hip-Joint with No Symptoms to Attract Attention for Several Years. (Les luxations congénitales de la hanche à symptomes tardifs.) C. Roederer.

47 *Reeducating Tabetic Joints. (Traitement kinésithérapique des arthropathies tabétiques.) P. Kouindjy

42. **Gouty Valvular Disease.**—Chiray and Bailleul remark that uricemic valvulitis, as they call it, entails the usual murmurs of a valvular defect, but the functional disturbance is minimal, the evolution of the affection extremely slow and rarely entailing a fatal outcome. In a case reported in detail the valvular affection induced periods of arhythmia not influenced by the usual heart tonics. The arhythmia lasted for four months at one time but there was never any fever or other sign of an infectious process. As the arhythmia became less pronounced, a typical mitral murmur was heard and has persisted during the two years to date. The patient was a woman of 62 who had long had numerous tophi and gouty deformity of the fingers but never any symptoms of a true attack of gout. She was of a neuropathic temperament and the urine was loaded with uric and oxalic acid.

43. **Toxicity of Bile.**—Roger did not find that rabbit bile had a toxic action when injected into other rabbits but beef gall proved toxic. The fatal dose varied with the dilution and velocity of the injection.

44. **Tearing Out the Intercostal Nerves in Treatment of Tabetic Gastric Crises.**—Cade and Leriche have applied Franke's method in a case of severe gastric crises in a tabetic woman of 27. The operation put an end at once and permanently during the three months to date to all the gastric symptoms—a brilliant success so far. The aim is to pull out the intercostal nerves and thus realize by a comparatively simple technic results equivalent to those of section of the posterior spinal nerve roots, namely, interrupting the continuity of the fibers of the sympathetic nerve innervating the seat of the pains. The nerve is exposed its entire length under general anesthesia and is lifted on a hook until the traction tears it out from its connection with the spinal cord. They thus pulled out the five nerves on each side, from the sixth to tenth inclusive. There has been no pain since in the region and the patient can eat at will and has gained over twenty-four pounds since the operation.

45. **Partial Resection of Nerve Roots in Treatment of Spastic Paralysis.**—Stoffel here reports nine cases in which he has applied his method, a success in every instance. The aim is to cut certain of the nerve fibers so as to sever some of the innervation of the muscles affected, leaving only enough intact to balance the antagonist muscles. This is supplemented by measures to train the antagonist muscles to increased action. (His previous communication on the subject was summarized in THE JOURNAL, Dec. 30, 1911, p. 2168.)

46. **Congenital Dislocation of the Hip Joint with Tardy Symptoms.**—Roederer relates the history of two girls brought to him at the age of 10 and 6½ on account of pain in the joint, no one suspecting the dislocation which yet was congenital. The children limped very little if at all and only irregularly, so that the dislocation escaped detection by the families which included some physicians as near relatives in one instance. The children did not learn to walk before the fourteenth and twentieth months. After correction of the dislocation the older child's gait was no better on removal of the plaster cast than before, and after a few months the dislocation recurred. The younger child has now an apparently normal gait.

47. **Treatment of Tabetic Joint Disease.**—Kouindjy gives an illustrated description of a tabetic patient with a functional affection of the right ankle twisting the foot over, showing the cure of the trouble under treatment consisting of massage and reeducating the muscles of the region. The muscles that have lost their tone are systematically massaged, the muscles involved being carefully sought out and treated, avoiding the others. The main trouble in these cases is the difference between the retracting powers of the various groups of muscles. He urges prompt treatment along these lines in all cases unless the joint is actually destroyed. Tabetic joint affections in the pre-ataxia stage are generally the precursors of locomotor ataxia, and hence the reeducating exercises are particularly important. In mild cases the cure may be practically complete in less than three weeks but otherwise six months or more may be necessary.

V. 58
1912

Revue Mens. de Gyn., d'Obstétrique et de Pédiatrie, Paris

March, VII, No. 3, pp. 161-224

48 *Athrepsia in Infants. (Comment faut il comprendre ce terme "athrepsie des nouveau-nés et des prématurés"?) P. Bar.
49 Retrodisplacement of Uterus. (La rétrodéviation utérine.) L. G. Richelot.
50 Radium in Treatment of Membranous Dysmenorrhea. C. Jacobs.
51 *Injection of Air into the Mamma in Treatment of Eclampsia. (Eclampsie chez une malade atteinte de lésions probablement kystiques des reins; influence de l'injection d'air dans le sein.) R. Gilles and Ducuing.
52 Hysterectomy for Uterine Fibromas. (2 cas d'hystérectomie abdominale pour fibromes très volumineux.) G. Deverre.
53 Series of Seven Prematurely Induced Deliveries in a Rachitic Woman. (A propos d'une série heureuse de sept accouchements prématurés artificiels chez la meme femme.) Véron.
54 Sarcoma of Upper Jaw in Infant Under 2. H. L. Rocher.

48. Athrepsia.—Bar discusses the various theories that have been advanced to explain the nutritional disturbances in prematurely born infants which lead to the clinical picture called athrepsia. Modern conceptions have modified the old views as to the nature of the trouble; it is now generally accepted, he says, that it is the result of alien elements in food. Each cell has its specific properties and alien cells and fluids may act on the cell like a poison. Milk shows the specific properties of individuals, and cow's milk, being an alien substance, may act on an infant like an actual poison. Adults eat alien substances, meat, milk, etc., but they are transformed by the digestive ferments before they have a chance to get absorbed, so that when they are absorbed into the blood they have become modified to such an extent that they have lost their specific alien properties. The prematurely born infant does not produce ferments enough to modify the alien elements in cow's milk, and it is absorbed as an alien substance, which is more than liable to act as a poison. The whole question is whether the child is producing ferments or not. If not, then the alien substances in the milk act like a poison, and each time the little organism is rendered more and more sensitive to the toxic action of the alien substance. It thus becomes sensitized; the phenomena of anaphylaxis result. Sterilizing the milk does not affect its characteristic of being an alien substance and hence cannot prevent the toxic action. Besides the species, there is an individual coefficient which may be sufficiently intense, in some cases, so that the mother's milk may act like a poison on the infant. In the rare cases of this kind it will generally be found that the mother had some long sickness during her pregnancy, usually resulting from colon bacillus infection. Under its influence the mother's organism underwent some modification which altered her milk to such a degree that it acts like a poison for the child.

51. Injection of Air into the Mamma in Treatment of Eclampsia.—In the case reported Gilles and Ducuing applied all the usual measures in vain, the convulsions keeping up after delivery at term. Both kidneys were probably in cystic degeneration, a nephrectomy having been contemplated before the onset of the pregnancy. The eclampsia developed suddenly without any premonitory symptoms beyond slight albuminuria which had persisted through the pregnancy unmodified by restriction to a milk diet, etc. There was no hemorrhage, but the convulsions kept up after delivery of a dead fetus at term, the patient in profound coma in the intervals, the temperature going up to 39.5 C., the pulse uncountable. As no relief was obtained from the usual measures, venesection to 1,000 gm., purges and lumbar puncture, and the patient had had fifty-five convulsions in less than twenty-four hours, a trocar was introduced into the breast, and oxygen and air were injected into the submammary cellular tissue. Improvement was evident in thirty minutes; the pulse became stronger and 160 could be counted, the temperature dropping a little. Four hours later the injection was repeated and the intervals between the seizures grew constantly longer, and the patient gradually recovered. Injection of air in this way is a common procedure in veterinary practice to relieve disturbances accompanying the birth of a calf or colt. Martin has reported the immediate cessation of the convulsions in a severe case of eclampsia in which this method was applied. (Its physiologic basis and the benefit in parturition paresis in cows were described in an editorial in THE JOURNAL, April 20, p. 1201.) The inflation of the tissues prevents by its pressure the absorption of the toxins generated in the mammæ during the modifications attendant on the onset of lactation.

Revue Pratique d'Obstétrique et de Gynécologie, Paris

January, XX, No. 1, pp. 1-28

55 *Minor Pains During Pregnancy. (Sur un syndrome douloureux benin au cours de la grossesse.) L. Pouliot and H. Vignes.
56 Unequal Development of the Mammæ from Standpoint of Lactation. (De l'inégalité de volume des seins pronostic pour l'allaitement.) G. Kelm.
57 *Venesection as Prophylactic and Treatment of Eclampsia. (De la saignée dans le traitement des accidents prééclamptiques et des accès éclamptiques.) Potocki.

February, No. 2, pp. 33-60

58 Pituitary Extract in Obstetrics. (Emploi de l'extrait de l'hypophyse en obstétrique. Quelques essais.) A. Spire and J. Parisot.
59 *Phlebitis as Complication of Uterine Fibromas. (La phlébite dans l'évolution des fibromes.) J. Duvergey.
60 Pernicious Anemia of Pregnancy. (3 nouveaux cas d'anémie pernicieuse de la grossesse.) Bourret.
61 *Auscultation Sign of Twin Pregnancy. (Le signe d'Arnoux dans la grossesse gemellaire.) Le Lorier.

55. Minor Pains During Pregnancy.—Pouliot and Vignes refer to a series of pains of which women complain sometimes during the latter part of pregnancy; they are accompanied by a number of tender points on one or both sides, most prominent on the left. The tender points correspond to the branches of the lumbar plexus and sometimes of the sacral plexus. The knee-jerk is usually exaggerated, generally most pronounced on the side where the pains are most marked. No vasomotor phenomena or disturbance of the general health were observed in any of the twenty-one cases on which the article is based. In one case fatal meningitis developed on the heels of this "syndrome of minor pains," and this with other facts cited suggests that the trouble is the first stage of inflammation from attenuated infection affecting the posterior spinal roots. The infection is not specific but may be tuberculous, syphilitic or due to rheumatism or other germs. The lumbar plexus suffers most as this is in a condition of diminished resistance from the trauma from the gravid uterus; it is not a question of compression but of traction, pulling on the nerve branches as the uterus enlarges. Lumbar puncture was not done in his cases as the symptoms were scarcely serious enough to warrant this, but moist heat and baths, sodium salicylate and a sedative were advised in the mild cases and, in the more severe, wet cups to the lumbar region and refrigeration along the course of the nerves involved, inducing local anesthesia by refrigeration from evaporation of methyl chlorid from a tampon of cotton.

57. Venesection in Eclampsia.—Potocki reports twelve cases in which he drew blood from a vein to ward off impending eclampsia or in treatment after the convulsions had begun: He was much impressed with the instantaneous subsidence of the alarming symptoms after the venesection in the two cases of what he calls the stage of pre-eclampsia. It relieves the organism at once of quantities of toxins, reduces the blood-pressure and tides the patient along until the effects of diet and hygiene become manifest. It is important to draw enough blood, 50 gm. at least; the patients say that their headache and ocular disturbances stop at once as the blood is drawn. After convulsions have occurred, from 600 to 1,000 gm. have to be drawn at once before the symptoms show a turn for the better. He was surprised to find that one effect of the venesection was immediate and profuse diuresis. Chirie has reported a mortality of only 4 per cent. among twenty-five eclamptic patients treated by profuse venesection. In Potocki's cases the venesection did not seem to debilitate the women; all the patients left the hospital in good health from the eleventh to the twentieth day after the venesection, including one patient who had had vaginal thrombosis. Lumbar puncture was done in one case and the fluid was found under high pressure but no benefit followed withdrawal of 20 gm. Two of the patients developed puerperal mania, but one promptly recovered.

59. Phlebitis as Complication of Uterine Fibromas.—Duvergey knows of four cases of complicating phlebitis among 260 cases of uterine fibromas. His experience emphasizes the necessity for examining for signs of thrombophlebitis whenever a large fibroma is known to be present. Compression

from the tumor is generally responsible for the inflammation in the vein but infection is liable to be in play also. In one of his patients the external iliac vein was compressed by the tumor and the staphylococcus was cultivated from the intrauterine secretions. There are usually pre-existing varicose enlargements of the veins in the leg. One of his patients applied for relief from the phlebitis, knowing nothing of the existence of the primary fibroma. The source of infection, the fibromatous uterus, should be removed as soon as possible, but the phlebitis in the leg should be cured first, as otherwise mobilization of the tumor is liable to induce embolism. A. Schwartz has reported a case in which an attempt to enucleate the tumor was followed by fatal embolism.

61. **Auscultation Sign of Twin Pregnancy.**—Le Lorier states that it is possible to train one's ear so that with the stethoscope one can distinguish the beat of the fetal heart when there are two fetuses. The sound is like that of a span of horses galloping; sometimes the feet fall together and it sounds as if there was only one horse, then the hoof-beats of both can be heard separately. This irregular double rhythm in the fetal heart beat is pathognomonic of a twin pregnancy. He ascribes the first description of the sign to Arnoux, 1908.

Semaine Médicale, Paris

March 27, XXXII, No. 13, pp. 145-156

62 *Identity of Brill's Disease with Typhus. (La "maladie de Brill" est-elle une entité morbide nouvelle?) L. Cheinisse.

April 3, No. 14, pp. 157-168

63 *Formation of an Artificial Vagina from Loop of Intestine. (La réfection du vagin absent au moyen d'une anse intestinale.) R. De Bovis.

62. **Identity of Brill's Disease with Typhus.**—Cheiniase presents and reviews the data that have accumulated on this subject, endorsing the identity of these two diseases in accordance with the conclusions of the editorial in THE JOURNAL, Feb. 10, 1912, p. 414.

63. **Formation of Artificial Vagina by Intestinal Implantation.**—De Bovis discusses the various methods of forming a vagina out of a loop of intestine, stating that it has been done in eleven cases and that the functional outcome was satisfactory in all. Dreyfus has recently reported utilizing a hernial sac for the purpose, and Ott and Stoeckel made a vagina out of peritoneum, but the operation was not a success in either instance. (Stoeckel's success with a loop of intestine was recently described in these columns, Feb. 10, 1912, p. 451.)

Beiträge zur Klinik der Tuberkulose, Würzburg

XXII, No. 2, pp. 97-264. Last indexed March 9, p. 740

64 *Cysts at the Roots of Teeth in Origin of Tuberculosis. (Die phthisiogenetische Bedeutung der Zahnwurzelsysten.) J. Zilz.

65 *Comparison of Roentgenoscopic, Physical and Necropsy Findings. (Erfahrungen mit der von Brauer empfohlenen Sektionstechnik der Lungen.) W. A. Gekler.

66 *Emphysema. E. Raither.

67 *Experiences with Induced Pneumothorax. A. Keller.

68 *Induced Pneumothorax in Its Action on the Heart and Circulation. P. G. Carlström.

64. **Cysts at the Roots of Teeth in Origin of Tuberculosis.**—Zilz reports four cases of cysts at the roots of teeth in which bacteriologic investigation revealed the presence of Much's granula, which he defines as the non-acid fast form of the tuberculosis germ. The findings are profusely illustrated and the questions discussed why it is so difficult to detect acid-fast, Gram-staining bacilli in the gangrenous pulpa, and why primary tuberculosis starting in carious teeth is not of more common occurrence. He regards Much's granula as merely ordinary acid-fast tubercle bacilli which have lost their acid-fast properties; hence the organic fluids are able to disintegrate them and the vital centers, the granula, escape into the surrounding medium. When conditions become more favorable to the bacilli, they may become impregnated again with acid-fast substance and the acid-fast form thus develop again, which in turn may break up anew into granula. His plates show the process distinctly, the granula causing no tuberculous changes in the dental cyst. The bacilli probably found their way through the blood into the cyst and while there remained latent but regained their virulence when conveyed farther to lymph-nodes or lungs. Inoculation of animals with the granula always gave positive results.

65. **Comparison of Roentgenoscopic, Physical and Necropsy Findings.**—Gekler gives the stereoscopic views in three cases out of a large number studied by a special technic in making the sections to correspond exactly with the application of the Roentgen rays. Interpretation of the roentgenoscopic findings at the hilus is peculiarly difficult, even for those with considerable experience, as is evidenced by one of the cases.

66. **Emphysema.**—Raither concludes from his clinical, experimental and mechanical research on the origin of emphysema, that it is the result mainly of a reduction in the velocity of expiration rather than in a reduction of the vital capacity. The cause of this retarded outflow of the air must be, he says, increased friction of the air in the air passages, and the cause of this is a functional stenosis of the bronchioles induced by the secretions from chronic bronchiolitis.

67. **Experiences with Induced Pneumothorax.**—Keller's article fills seventy-six pages and gives the details of forty cases in which this method of treatment was applied, for pulmonary tuberculosis in thirty-five, bronchiectasis in three and pulmonary abscess in one. The advantages of the method were plainly evident in many cases, most strikingly in pulmonary processes with a cavity; excluding this focus by squeezing its walls together eliminates this source of toxin production and the patients take at once a remarkable turn for the better. A very favorable influence was also apparent in cases of purely infiltrative processes, even those due exclusively to pneumonia. He advocates the induced pneumothorax as far superior to all other measures at our command in such cases. The sound tissue is not destroyed by the process, its functioning is merely held in abeyance for a time. No unfavorable influence on the heart or vessels was suggested in any of his cases. Good results were obtained also in two of the four cases of bronchiectasia.

68. **Induced Pneumothorax in its Action on the Heart and Circulation.**—Carlström's patient was a young man with extensive right pulmonary tuberculosis of six months' standing, the heart clinically sound. The diseased lung was compressed by artificial pneumothorax, the patient constantly in bed. He succumbed two months later to hemoptysis, the left lung having developed bronchopneumonia and a tuberculous process in the intestines also becoming evident. Necropsy revealed extreme hypertrophy of the right ventricle, and Carlström regards this as the result of the compression of the lung interfering with the local circulation in the region, and thus compelling the right ventricle to do extra work. Either some of the gas had escaped into the other side and compressed the other lung, or else the pneumothorax had pushed the heart so far over that the pulmonary artery became kinked. The necropsy findings were the same in a second similar case, the right ventricle being much hypertrophied and the walls 7 mm. thick.

Berliner klinische Wochenschrift

March 25, XLIX, No. 13, pp. 581-628

69 *Improved Technic for Laryngoscopy. (Ueber Schwebelaryngoskopie.) Killian.

70 Attenuated Criminal Responsibility with Business Capacity and Vice Versa. (Zurechnungsfähigkeit und Geschäftsfähigkeit.) H. Marx.

71 Valve Ileus in Little Boy. (Ventilverschluss durch Abknickung im untersten Teil des Dickdarms im späteren Kindesalter.) F. Göppert.

72 Atypical Proliferation of Epithelium in Syphilis. (Eine hochgradige atypische Epithelwucherung bei Syphilis.) R. Rohrbach.

73 *Epileptiform Seizures After Salvarsan. (Epileptiforme Anfälle bei Salvarsan.) F. Lesser.

74 The Wassermann Reaction in Rabbits. (Die Wassermann'sche Reaktion beim Kaninchen.) L. Halberstaedter.

75 *Nail Extension in Treatment of Fractures. (Wie hat sich die Nagelextension in der Frakturbehandlung bewährt?) L. Süssenguth.

76 Bone and Cartilage Growth in the Mucosa of the Trachea. (Zur Kenntnis der Tracheopathia osteoplastica.) I. Haga.

69. **Improved Technic for Laryngoscopy.**—Killian in experimenting on the cadaver was astonished at the way in which the throat was opened up for visual inspection when the head was allowed to hang down over the edge of the table, suspended merely by a tongue spatula fastened by an extension to a frame attached to the table above. The whole weight of the head is thus borne by the parts against which the spatula presses; the throat yawns and one can see the entire cavity

V. 58 1912

of the larynx and for some distance into the trachea. He has applied the method to twenty patients and has found that it immeasurably facilitated operations on the throat in both children and adults. The procedure was borne with remarkable ease and no disturbance except a depression left in the tongue from the groove in the spatula; the spatula now used has no groove. At need the spatula can be fitted with lamps.

73. **Epileptiform Seizures after Salvarsan.**—Lesser reports a case of epileptiform seizures eight weeks after salvarsan treatment. This in connection with seventeen similar cases from the literature, which he tabulates, suggests that in exceptional conditions the salvarsan becomes transformed in the body in such a way as to give off toxic products, the nature of which we do not know to date or the etiologic factors. It seems evident that these toxic products are liable to induce functional disturbances and even actual tissue changes. According to the intensity and the point of attack, the disturbance may range from the slightest, clinically latent forms, to the severest, even directly fatal changes. He says that the epileptiform seizures come under the heading of functional disturbances. Arsenic may be eliminated even months after an intravenous injection of salvarsan, and as Frenkel-Heiden, Navassart, Ullmann and others have apparently demonstrated that the arsenic preparation is stored up in the liver, toxic action therefrom may occur even months after the injection. He regards the neurorecurrences and Herxheimer reaction in internal organs as the result of organic changes induced by the toxic products which either favor the settling of spirochetes at this point, or preexisting syphilitic changes may focus the toxic action here.

75. **Nail Extension in Treatment of Fractures.**—Süssenguth has applied Steinmann's method (mentioned in THE JOURNAL, 1909, liii, p. 422) in twenty cases during the last few years, leaving the nails or drills in place not longer than twenty days as a rule. In sixteen of the eighteen cases in which the method was given a fair trial the result was ideal in respect to the healing and lack of shortening of the limb. In the two other cases the patients insisted on using the limb too soon, against his advice, and a secondary shortening resulted. The advantages of the method are the direct action on the bone, the lighter weights required, easier fixation, convenience for massage and exercises and avoidance of eczema and circulatory disturbances. Its drawbacks are the pains, risk of infection and of loosening of the nails and of irritation around the nail holes. The method is particularly useful in cases of compound fracture with extensive injury of the soft parts as the traction can be exerted from a remote point. It may also prove useful in treatment of fractures rebellious to other measures or which are left with deformity. The method thus is not destined to supersede others but to take rank beside them for certain special indications. The pains were severe in half his cases, three patients (men) pulling out or loosening the nails the fourth, eleventh or seventeenth day. Three patients did not seem to feel any pain from the procedure and in seven others the pain was negligible, but sedatives were required in the severe cases during most of the time the nails were in place. There was a phlegmonous swelling around the nails in one case and in four the nail holes showed signs of pressure necrosis but healing was complete by the end of the month in all. He mentions that Schwarz and Körber have each reported a case of fatal sepsis from the nail extension.

Centralblatt für die Grenzgebiete der Med. und Chir., Jena

XV, No. 3, pp. 59-218. Last indexed March 23, p. 901

77 *Study of the Indications for and Ultimate Outcome of Operative Treatment of Cholelithiasis. A. Exner. Critical review of the literature 1907-1911.
78 *Chronic Pancreatitis. A. Arnstein. Critical review of the literature.
79 *Prophylaxis of Epidemic Poliomyelitis and Treatment of the Conditions It Leaves. (Prophylaxe der Poliomyelitis acuta und die Behandlung ihrer Folgezustände.) E. Popper. Critical review of the literature.
80 *Relations Between the Thymus and Exophthalmic Goiter. (Beziehungen der Thymus zur Basedow'schen Krankheit.) E. Melchior. Critical review of the literature.

77. **Operative Treatment of Cholelithiasis.**—Exner reviews 209 articles that have been published on this subject during the last five years, all seeming to show that the ultimate outcome of operative treatment of gall-stones depends on the recurrence of trouble. Besides stones left behind, adhesions, hernias and strictures of the bile passages are not rare. Actual recurrence of stones is exceptional after removal of the gall-bladder, and all the evidence is in favor of this as the best, although the more dangerous procedure. To avoid the pseudorecurrences, the neighboring organs should be carefully examined to ascertain if there is not some other morbid condition in the vicinity.

78. **Chronic Pancreatitis.**—Arnstein lists the titles of 437 articles that have appeared on this subject in the last five years in international literature. Vomiting and diarrhea, loss of flesh, pains principally in the upper abdomen, and anemia are the main symptoms; a tumor may be palpated in the pancreas region. Jaundice is observed in about 50 per cent. of the cases and disturbances in absorption are common, leading to exaggerated output of fat, nitrogen and creatin. Diabetes seems to occur only in the cases with much involvement of the islands. Functional tests of the pancreas may be instructive but they are not decisive and frequently give negative results. As a rule, the pancreatitis is associated with cholelithiasis and is another argument in favor of prompt operative measures for the latter. When this is not adopted, dietetic measures and possibly treatment for syphilis should be tried. If these fail, an exploratory laparotomy, decapsulation of the pancreas or other operative measure may then be indicated. The mortality from an operation for chronic pancreatitis in the seventy-four cases compiled from the literature was 14 per cent. Fifty-six patients were cured, five more or less improved, and the outcome is not known in three cases.

79. **Epidemic Poliomyelitis.**—Popper discusses the treatment and prophylaxis on the basis of 105 articles from the literature. He says that the name "poliomyelitis," which signifies inflammation of the gray matter of the spinal cord, no longer applies to the disease, as we know now that it may affect the brain, meninges, medulla and nerves, as Medin pointed out. The mortality in the various epidemics on record ranged from 10 to 14 per cent.; complete recovery followed in 13 to 22 per cent. The experiences to date with operative-orthopedic measures are reviewed in detail. Some are very promising.

80. **Relation of the Thymus to Exophthalmic Goiter.**—Melchior's conclusions are based on considerable unpublished experience besides 151 articles in the literature and experimental research. It seems evident that an unduly large thymus accompanies established exophthalmic goiter in fully 80 or 90 per cent. of the cases. There is nothing to show that the large thymus has any special toxic action, but it suggests that the status thymico-lymphaticus represents a special reaction of the tissues to excessive functioning of the thyroid. He regards the so-called "thymus death" as a pure "heart death." The facts are not that an otherwise healthy person suddenly dies and the only pathologic finding is the persistent thymus — the truth is that the person has long suffered from the toxic action from the diseased thyroid, seriously injuring the heart which is liable to fail at any moment. The experiences related confirm the increasing success of operations on the thyroid with exophthalmic goiter when the disease is not too far advanced. The latest statistics show that an increasing percentage of such patients are being improved or entirely cured by an operation merely to reduce the size of the thyroid; the degree of benefit generally corresponds to the amount of the thyroid removed.

Correspondenz-Blatt für Schweizer Aerzte, Basel

April 1, XLII, No. 16, pp. 569-590

81 "Be Cautious with Scopolamin." ("Vorsicht mit dem Skopolamin.") Britstlein.
82 Histogenesis of Endemic Goiter. (Zur Histogenese des endemischen Kropfes.) C. Wegelin.

Books Received

JOURNAL Announcements, Knocks and Boosts, Books Received and changes in the Public Service will be found in the advertising section, commencing on the second page following reading matter.

Book Notices

A HANDBOOK OF MEDICAL DIAGNOSIS IN FOUR PARTS. I. Medical Diagnosis In General. II. The Methods and Their Immediate Results. III. Symptoms and Signs. IV. The Clinical Applications. For the Use of Practitioners and Students. By J. C. Wilson, A.M., M.D., Professor of the Practice of Medicine and Clinical Medicine in the Jefferson Medical College, Philadelphia. Third Edition. Cloth. Price, $6. Pp. 1438, with 418 illustrations. Philadelphia: J. B. Lippincott Co., 1911.

The popularity of this work was shown by the fact that a second edition was required in less than four months after the publication of the first. Fourteen months were allowed to elapse between the publication of the second and third edition, but even in this time a number of important advances have necessitated the rewriting of several articles and many paragraphs, together with a considerable number of minor alterations. The work presents, in a convenient form, the essentials of medical diagnosis, both clinical and laboratory. The work is well supplied with helpful illustrations, but the author very justly states his objection to the suggestion of some junior teachers in regard to the freer use of diagrams and parallel column tables in the differential diagnosis of diseases. As he says, this does not and cannot conform to the varying facts of nature and the parallel columns that do not and cannot be made to indicate the varying departures from types of diseases are pitfalls and snares to the student; the fewer such devices that are brought to the attention of the student the better.

Such a broad view of diagnosis ought to be especially welcome to the general practitioner, who must employ his diagnostic skill in solving the problems presented by atypical cases which are encountered in actual practice.

NERVOUS AND MENTAL DISEASES. Edited by Hugh T. Patrick, M.D., Professor of Neurology in the Chicago Policlinic, and Peter Bassoe, M.D., Assistant Professor of Nervous and Mental Diseases, Rush Medical College. The Practical Medicine Series. Cloth. Price, $1.25. Pp. 245. Chicago: The Year-Book Publishers, 180 North Dearborn Street, 1911.

SKIN AND VENEREAL DISEASES AND MISCELLANEOUS TOPICS. Edited by W. L. Baum, M.D., and Harold N. Moyer, M.D. The Practical Medicine Series. Cloth. Price, $1.25. Pp. 239. Chicago: The Year-Book Publishers, 180 North Dearborn Street, 1911.

These volumes comprise a record of the literature of these diseases during the year and are up to the former standard of the Year-Book series, the selection of the most interesting and original papers of the year being included. In the volume on nervous and mental diseases is an interesting discussion of the Freudian theory of psycho-analysis and dream analysis, prominent subjects among neurologists and psychiatrists at present. Anxiety neuroses and hysteria are also given considerable space. Among the other subjects discussed is poliomyelitis, which, though now regarded as an infectious disease, is still classed among the nervous diseases.

In the volume on skin and venereal diseases, pellagra and leprosy are discussed as skin diseases. There does not seem to be any more reason for classifying these diseases as skin diseases than in the case of syphilis, and this classification will probably be changed some time. An interesting section of the latter book is the miscellaneous section in which are discussed, among other things, the history of medicine, state insurance and various medicolegal and sociologic questions. Mechanically the volumes are up to the usual standard.

THE ORIENTATION OF BUILDING OR PLANNING FOR SUNLIGHT. By William Atkinson. First Edition. Cloth. Price, $2. Pp. 139. New York: John Wiley & Sons, 1912.

Here are reported elaborate studies of astronomic data to ascertain the most desirable position, shape and plan for buildings, with reference to sunlight. For example, if a square building faces south, there will be a portion of its north wall and the ground adjacent on which the sun will not shine at all during the winter. If a square building is placed with its diagonal on the meridian, as is the custom among the mountain dwellers of Switzerland, every side of the house will receive some sunshine. Atkinson analyzes L-shaped buildings and those of more complex arrangement, the placing of windows, the obstruction of the sun by projecting window easements, neighboring buildings, cornices, etc. The work is full of diagrams illustrating every point made and should be of decided help to those concerned in the construction of hospitals, houses and other buildings. The regulations enforced in Paris and in some of the principal cities of the United States and Canada are summarized in appendices. One striking point brought out in the illustrations is the gross infringement on the rights of others caused by cornices and elevated fronts on buildings. In a narrow street lined by high buildings, a cornice can cut off an appreciable amount of sunshine. This point may not be recognized until one makes a diagram of the street and the angles of the sun's rays. A building without the cornice is apt to look odd, but we would soon get used to it as we do to the remarkable styles in women's dress, and the street without its projecting cornices would have much more sunshine. This is merely one suggestion among many in the helpful little volume.

Association News

THE ENTERTAINMENTS

(Concluded from page 1375)

The program for the ladies' entertainment includes an introduction reception at the Hotel Chalfonte at 2 o'clock, Tuesday afternoon; tea and boat rides at the Ventnor Yacht Club at 2 o'clock Wednesday afternoon; and a reception and tea at the Marlborough-Blenheim at 3 o'clock, Thursday afternoon.

ALUMNI REUNIONS

THE JOURNAL has received announcements of the following reunions for Tuesday night:

The Society of the Alumni of the Medical Department of the University of Pennsylvania will hold its annual banquet at Atlantic City (instead of Philadelphia) Tuesday, June 4. The university headquarters during the session will be, as before, at Young's Hotel. The banquet will be at the Shelburne at 6 p. m.

THE GENERAL MEETING

Program for the Opening of the Scientific Proceedings of the Session

The General Meeting will be held in the Apollo Theater, on the Boardwalk, between Kentucky and New York Avenues, Tuesday, June 4, at 10:30 a. m. This is the formal opening of the scientific sessions of the meeting. It is the only time the whole convention will assemble in one place. The program is as follows:

Music.
Call to order by President John B. Murphy, Chicago.
Invocation by Cardinal James Gibbons, Baltimore.
Addresses of Welcome:
Mayor Bacharach, of Atlantic City.
Governor Woodrow Wilson, of New Jersey.
Introduction and Installation of the President-Elect, Dr. Abraham Jacobi, New York City.
Address by the President, Dr. Abraham Jacobi.
Adjournment.
Music.

RAILROAD RATES

Announcement of Rates by the Railroads from All Parts of the Country

The Committee on Transportation and Place of Session suggests that members consult the local ticket agents in their home towns for full information regarding rates, time limits, extensions and stop-over privileges. Those going to Atlantic City are assured that they are paying as low a price for their tickets as are those going to a convention of any kind, and lower than many. This year the railroads are giving better rates to summer resorts than to other points. Our

V. 58
1912

rate is at the average of 1½ cents a mile while the rate to other than summer excursion points is 2 cents a mile.

The committee announces the following rates for Atlantic City:

1. The New England Passenger Association announces that lines in this Association (excepting the Bangor and Aroostook R. R., Dominion Atlantic Ry. & S. S. Lines and Eastern Steamship Corporation) have authorized a rate of one and one-half first-class limited fare for the round trip. Tickets to be on sale and good, going, June 1-3, and returning to reach original starting point not later than June 10.

2. The Transcontinental Passenger Association announces a rate from California points to Chicago and return of $72.50, or to St. Louis or New Orleans and return, $70.00. From either of these points, excursion tickets to Atlantic City may be bought. The following stop-overs will be allowed:

At and west of Port Arthur, Ashland, Chicago, Duluth, Peoria, St. Louis, Memphis and New Orleans on going trip within going transit limit and on return trip within final return limit, except that no stop-overs will be allowed in California on going trip on tickets sold in California. East of the Trans-Continental Passenger Association gateways, stop-overs will be subject to the requirements of interested lines. Going transit limit fifteen days from date of sale; final return limit October 31, 1912. Tickets will be good going from starting point only on date for which sold. East of Transcontinental Passenger Association eastern termini, tickets will be limited going and returning in conformity with regulations prescribed by eastern lines.

3. The Southwestern Passenger Association announces regular summer tourist fares.

4. The Trunk Line Association announces one and one-half first-class limited fare, with minimum of $2.00, for the round trip, going and returning via same route only; tickets to be sold and good, going, June 1-3, and returning to reach original starting point not later than June 10.

5. The Western and the Central Passenger associations announce the same rate. Short limit summer tourist tickets to Atlantic City will be sold June 1 to September 30, inclusive. Tickets will bear final return limit to reach original starting point not later than thirty days from date of sale.

Season limit summer tourist tickets to Atlantic City are on sale June 1 to September 30 and are good for return to reach original starting point not later than Oct. 31, 1912. A higher basis of fares applies, however, for season limit tickets.

We repeat, members should determine the time limit, stop-over privileges and route by conference with the local ticket agent.

SPECIAL TRAINS

A counterpart of the famous Chicago-New York 18-hour train, "The Pennsylvania Special," will leave Chicago 3 p. m., Sunday, June 2, over the Pennsylvania Lines.

It will consist of all-steel equipment, including a cozy Club Car, Drawing-Room Sleeping Cars and a Compartment Car with observation parlor and platform. A table d'hote dinner will be served in two dining cars soon after leaving Chicago, and à la carte breakfast and luncheon will also be served in two dining cars next day.

The special will reach Atlantic City about 2 p. m., Monday, June 3, running via Ft. Wayne, Pittsburgh and Philadelphia. The train will run into Broad St. Station in the latter city to accommodate passengers desiring to make the trip on New York tickets and enable them to comply with the requirements to deposit them at that station from which the usual low fare round-trip tickets between Philadelphia and Atlantic City can be used.

The sale of thirty-day round-trip tickets to New York City begins June 1, so that persons desiring to avail themselves of the opportunity to visit the metropolis at reduced fare may purchase such tickets. Thirty-day round-trip tickets from Chicago to New York will be sold daily beginning June 1 at $30.00. Similar tickets with Atlantic City as the destination will cost $29.25. They can be used on the special as well as on regular trains, and on request will be furnished good via Baltimore and Washington, at which cities stop-overs may also be arranged. Atlantic City tickets and New York tickets will also be good for stop-overs at Philadelphia in both directions.

Complete information will be furnished by any representative of the road, or one may address Mr. E. K. Bixby, District Passenger Agent, 175 West Jackson Boulevard, Chicago.

We are advised that special trains from New Orleans, St. Louis and other points are being planned; the details will be announced later.

J. RAWSON PENNINGTON, Chairman.

THE SECRETARIES-EDITORS BANQUET

One of the Pleasant and Profitable Functions Arranged for this Session

The sixth annual meeting of the Association of State Secretaries and Editors will be held at 7 o'clock p. m., Monday, June 3, at Marlborough-Blenheim. This organization was formed several years ago to bring these officers into close touch with each other, to encourage acquaintance, and to afford at the annual meeting an opportunity for an exchange of ideas for the betterment of state associations and state journals. All secretaries of state medical associations and all editors of journals published by these societies are members. There are no dues.

Following the banquet, the president, Dr. Melville Black, Denver, will deliver an address and will introduce the following program:

Uniform Regulation of Membership. Thomas McDavitt, St. Paul.
Transfer from the County Societies of One State to Those of Another Without Cost. Holman Taylor, Fort Worth, Texas.
Is Legal Defense Against Malpractice by State Organizations a Success? A. T. McCormack, Bowling Green, Ky.
Report of Chairman of Committee on Secretaries. William C. Lyle, Augusta, Ga.
Report of Chairman of Committee on Editors. A. T. Bristow, New York City.
Election of officers.

THE COMMERCIAL EXHIBIT

Books, Instruments, Surgical Appliances, Foods, Drugs, Furniture, etc., to be Shown at Atlantic City

The commercial exhibit at the Atlantic City session will have commodious quarters in the Atlantic City Exposition Building, corner of Kentucky Avenue and the Boardwalk. The scientific exhibit, the registration department, the postoffice, the information bureau, etc., will all be under the same roof as the commercial exhibit.

Books, surgical instruments, diagnostic and therapeutic appliances, electric and *x*-ray apparatus and many other specialties of practical value for use in the medical art will be found in the Exhibit Hall. Well-known pharmaceutical houses and manufacturers of therapeutic and dietetic specialties will be represented. Several of these are making special arrangements to have exhibits which will not only be unusually attractive but scientific and instructive in character. Among the books—as may be noted from the brief descriptions given below—there are many works on new subjects.

The surgical instrument exhibits, also, will show a distinct advance in practicability, the past year having added many new forms of diagnostic and operative instruments—especially those pertaining to eye, ear, nose and throat work. Important improvements in electro-therapeutic, *x*-ray and other apparatus will be demonstrated. New designs of physicians' office and reception-room furniture and equipment, operating tables, examining chairs, medicine cabinets of general utility, nebulizers, sterilizers, and other appliances are among the many articles to be displayed.

To the average physician there is a great deal of pleasure and information to be secured from looking over the latest products of the publisher's art; from examining scientifically constructed surgical instruments, inquiring into the therapeutic indications of elegant pharmaceutical preparations and dietetic products, etc.

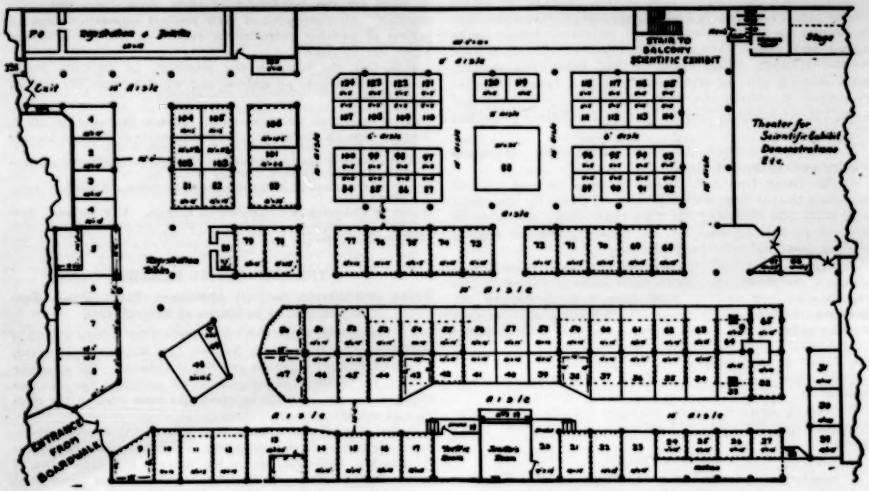
The pulmotor, which has recently become extensively employed in the restoration of suspended pulmonary action, will be demonstrated for the first time at the coming session.

There is every reason to assure visitors to the coming session that the display this year will excel in quality and instructive value that of any previous exposition.

All correspondence with reference to reservations should be sent to Mr. Will C. Braun, Superintendent of Exhibits, 535 Dearborn Avenue, Chicago. Dr. Edward Guion, 34 S. North Carolina Avenue, Atlantic City, N. J., is local chairman. The following firms will be represented at this session:

Publishers and Books

D. APPLETON & COMPANY, SPACE 6.—New medical works as well as new editions of standard books will be shown as follows: Dr. Ramon Guiteras' "Urology," Dr. J. J. Walsh's "Psychotherapy," and St. Clair Thomson's "Diseases of the Nose and Throat" are among the leaders. This firm will especially feature works on the practice of medicine including Osler, Dieulafoy, and Strumpell. The new revisions include Kelley's "Medical Gynecology," Keyes' "Diseases of the Genito-Urinary Organs" and Holt's "Diseases of Infancy and Childhood." They will also show advance proofs of works scheduled for publication later.



The Exposition Building, Kentucky Avenue and Boardwalk, showing the Scientific Exhibit, the Registration Bureau, the branch Post-Office and the Commercial Exhibit, with the spaces occupied by various firms.

P. BLAKISTON'S SON & COMPANY, SPACE 4.—Among the exhibits of this well-known firm are—New books: Hartmann, "Gynecological Operations;" Citron, "Methods of Immuno-Diagnosis and Immuno-Therapy;" Marshall, "Microbiology;" Honan, "Guide to Medical Europe;" Darier, "Ophthalmic Therapeutics," Kingsley, "The Comparative Anatomy of Vertebrates." New editions: Webster, "Clinical Diagnosis;" Gould and Pyle, "Cyclopedia of Practical Medicine and Surgery," edited by R. J. E. Scott; Montgomery, "Gynecology;" Binnie, "Operative Surgery;" Lovett, "Lateral Curvature of the Spine, and Round Shoulders," etc.

CLEVELAND PRESS, SPACE 80.—Will exhibit an advanced line of practitioner's books. Especially noteworthy are Casey A. Wood's "Complete Ocular Treatment," Würdemann's "Injuries of the Eye," the Chicago Ophthalmological Society's Symposium on "Cataract," the Ochsner and Percy "New Clinical Surgery," the Ochsner and Sturm book on "The Organization, Construction and Management of Hospitals," Croftan's "New Clinical Therapeutics," Patton's "Anesthesia and Anesthetics," etc.

F. A. DAVIS COMPANY, SPACE 25.—"The Davis Line of Medical Books" will be exhibited, including the new fifth edition of Sajous' "Internal Secretions and Principles of Medicine," and their latest text-books: Phillips' "Diseases of the Ear, Nose and Throat," Fischer's "Diseases of Infancy and Childhood," Cornell's "Health and Medical Inspection of School Children," Gilliam's "Practical Gynecology," Brooks' "Pathology," etc. A new and important publication hitherto unannounced will also be shown.

FUNK & WAGNALLS COMPANY, SPACE 43.—Publishers of the *Literary Digest*. Several new and important volumes on practical medical branches will be exhibited by this firm. Books published under the editorship of Gould, Bland-Sutton, Bosanquet, Bruce, Malcolm Morris, Treves and other well-known authors, will also be shown.

PAUL B. HOEBER, SPACE 35.—Albutt's "System of Medicine," Eulenburg's "Realencyklopædie," Delbet's "Nouveau Traité de Chirurgie," and all important recent books and monographs in English, German and French will be shown at this exhibit. Specialists and those interested in foreign publications, as well as collectors of old editions of the classics should be particularly interested in this exhibit, which will be in charge of Mr. Hoeber himself.

LEA & FEBIGER, SPACE 11.—The following new works will be exhibited: Cheyne and Burghard's "Surgical Treatment," to be published in five volumes, Volumes I and II of which are now ready, Hertzler on "Tumors," Adami and McCrae's "Text-Book on Pathology," Browning and McKenzie on "Syphilis," "Modern Treatment," two volumes, edited by Dr. H. A. Hare, Kanavel on "Infections of the Hand," Aaron on "Diseases of the Stomach," Potts' "Electricity," Weeks on the "Eye," Thornton's "Materia Medica," Brown's "Oral Surgery," Taylor's "Digestion and Metabolism," Edelmann's "Meat Hygiene," also the most recent editions of the following standard books: Harrington's "Hygiene," Simon's "Diagnosis," Koplik on "Diseases of Children," Ballenger on the "Nose, Throat and Ear," Adami and Nicholls' "Pathology—Special and General."

J. B. LIPPINCOTT COMPANY, SPACES 104-105.—Promise something new in the way of a picture display this year. The profession should also be interested in Volume 2 of Keibel and Mall's "Human Embryology," the work of the two most famous American and foreign embryologists; David Bovaird, Jr.'s, "Internal Medicine," for students and practitioners; and new editions of Lippincott's New Medical Dictionary, Emerson's "Clinical Diagnosis," and "Essentials of Medicine," Cohnheim's "Diseases of the Digestive Canal," Schmidt's "Pain," based on the second German edition, Davis' "Mother and

Child," Noguchi's "Serum Diagnosis of Syphilis," the fifth volume of Pfaundler and Schlossmann, Villiger on "Brain and Spinal Cord," Cushing on "The Pituitary Body," etc.

THE C. V. MOSBY MEDICAL BOOK AND PUBLISHING COMPANY, SPACES 89 AND 96.—This firm will exhibit their standard line of monographs and text-books. Prominent among the new books will be Roberts' "Pellagra," Williams and Williams' "Laboratory Technique," Warfield's "Arteriosclerosis," "A. C. Bernays—A Memoir," Myers' "Life and Letters of Dr. Wm. Beaumont," Pottenger's "Muscle Spasm and Degeneration as An Early Symptom of Inflammation in the Thorax," Marchildon's "Wassermann Test for Syphilis," Portner-Lewis' "Genito-Urinary Diagnosis and Therapy," and plates and advance sheets of Loeb's "Operative Surgery of the Ear, Nose and Throat."

THE OXFORD UNIVERSITY PRESS, SPACE 116.—The exhibit will consist almost entirely of monographs. The new "Practitioner's Encyclopedia of Medicine and Surgery," Burghard's "Surgery," "System of Syphilis" and several other new works will be on exhibition.

REBMAN COMPANY, SPACE 27.—Among an assortment of the newest standard authoritative medical literature, will be shown a remarkable ikonographic library comprising a series of illustrated works on diagnosis, dermatology, clinical surgery and ophthalmology by a life-like color-portrayal of every pathological condition delineated. "Typical Operations in Surgery," the second volume of "Surgery of the Brain and Spinal Cord," and new art prints will form a few of the many interesting features of the exhibit.

W. B. SAUNDERS COMPANY, SPACE 48.—This house will exhibit Murphy's "Surgical Clinics," Kelly's "Cyclopedia of American Medical Biography," Musser and Kelly's "Practical Treatment," Cabot's "Differential Diagnosis," Davis' "Operative Obstetrics," "Papers from the Mayo Clinic," Anders and Boston's "Medical Diagnosis," Niles' "Pellagra," Pilcher's "Practical Cystoscopy," "Fenger Memorial Volumes," Keen's "Surgery," "Dorland's Illustrated Dictionary" [new (6th) edition], Mumford's "Surgery," Crandan and Ehrenfried's "Surgical After-Treatment" [new (2d) edition], also advance sheets of DeLee's "Obstetrics," and Daugherty's "Economic Zoology."

WILLIAM WOOD & COMPANY, SPACE 2.—A revised edition of Cunningham's "Practical Anatomy" will bear the most critical examination, "An Index of Differential Diagnosis" is a radical departure in handling this topic, Roberts' "Surgery of Deformities of the Face" a most successful book, Stedman's "Medical Dictionary" and Bradford and Lovett's "Orthopedic Surgery" the latest in the field. Special attention is called to Bryant and Buck's "American Practice of Surgery." A hundred other new books for physicians and nurses.

YEAR BOOK PUBLISHERS, SPACE 112.—The Practical Medicine Series of Year Books will be on display. Mr. Homer Vanderblue will be in charge.

Pharmaceuticals and Biologic Products

ARLINGTON CHEMICAL COMPANY, SPACE 8.—Will be occupied jointly by the Arlington Chemical Co. and the Palisade Manufacturing Co., makers of liquid and dry peptonoids and hemaboloids. These preparations will be displayed together with a number of interesting and instructive food-charts, constituents of the various preparations, etc. Several representatives will be ready to explain the preparations or answer any questions. An interesting and beautiful souvenir will be presented to every physician who visits the exhibit.

ABBOTT ALKALOIDAL COMPANY, SPACE 70.—The special features of the exhibit of this company will be the demonstration of the methods of manufacturing granules of the active-principle and similar remedies by skilled laboratory workers, illustrating the hand methods. In addition this company will present a large line of alkaloidal and active-principle remedies, as they extract them from the drugs and in finished forms. Their interesting line of Council-passed specialties will also be demonstrated.

ARMOUR AND CO., SPACE 103.—The therapeutics of the ductless glands, especially the thyroid and suprarenals, has been investigated thoroughly in recent years. As a result of these investigations, this firm is demonstrating standardized products of these glands for which is claimed uniform therapeutic activity and strength. The organotherapeutic exhibit of this firm will be demonstrated by scientific experts and should be of great interest.

BURROUGHS WELLCOME & CO., SPACE 78.—The exhibit of this firm will consist of products they manufacture under "Tabloid," "Soloid," "Vaporole," "Wellcome," "Enule," etc., representing "therapeutic weapons of precision;" "Tabloid" brand medical equipments; "Tabloid" brand compressed bandages and dressings; "Tabloid" hypodermic and ophthalmic cases; "Tabloid" hypodermic and ophthalmic products, and other preparations representing the latest advances in scientific pharmacy.

FAIRCHILD BROS. & FOSTER, SPACE 7.—Their standardized products of the gastric and pancreas glands, especially prepared for therapeutic use, will be displayed; also hypodermic ampules; surgical solvents; foods for the sick, in dry and fluid forms; concentrated food for colonic alimentation; culture peptone for bacteriologic work; lactic bacillary products of pure cultures of the Bulgarian bacilli.

HOFFMANN-LAROCHE CHEMICAL WORKS, SPACE 31.—This firm will again exhibit its products before the Association and thus afford visitors the opportunity of studying at close range bulk quantities of the high class alkaloids—Homatropin, Eserin, Pilocarpin, Hyoscin, Veratrin, and many others, and of becoming acquainted with their specialties: Digalen, Thiocol, Airol, Thigenol, etc.

THE MALTINE COMPANY, SPACE 83.—Will exhibit its well-known line of "Maltine Plain" and combinations, laying particular stress on "Maltine with Olive Oil and Hypophosphites," which is its latest preparation. Liberal samples of the pure olive oil which is used in the manufacture of this preparation will be distributed. This is the very finest oil obtainable in Italy.

H. K. MULFORD CO., SPACE 3.—This exhibit will include a complete line of biologic products, antitoxins, curative serums, bacterins, vaccines, tuberculins and a new form of administering tuberculin for immunization; methods of standardizing ergot and digitalis, etc. Visitors will be well repaid by giving this exhibit a careful study as it will show very forcibly the remarkable progress which has been made in these important branches of therapy.

PULVOLA CHEMICAL CO., SPACE 123.—An odorless, tasteless, dry, white Ichthyol—as combined with Dolomol (magnesium stearate), the neutral, non-absorbent base for this and twenty other medicaments and for Pulvola, "The Doctors' Baby Powder"—will be exhibited. The unique demonstration, "The Tale the Two Tumblers Tell—an eye-opener on toilet powders and dry ointments" may be counted on to attract attention.

ROESSLER & HASSLACHER CHEMICAL CO., SPACE 26.—An interesting exhibit of a series of their specialties of oxygen-bearing products, peroxids and perborates, as applied in modern oxygen therapy: Sodium perborate powder, to replace hydrogen peroxid; magnesium peroxid, for internal use in place of bismuth salts; zinc peroxid; calcium peroxid, strontium peroxid; peroxid zinc soap; oxone, for convenient instantaneous production of pure oxygen gas; also some handy, modern and practical devices for the generating and safe administration of oxygen.

DR. G. H. SHERMAN, SPACE 52.—Will exhibit his extensive line of bacterial vaccines (Bacterins) which have come to be considered leaders in this particular field. Other features will be a new self-sterilizing pocket hypodermic outfit especially designed for use in vaccine therapy and a second, greatly enlarged, edition (320 pages) of the book "Vaccine Therapy in General Practice."

SCHERING & GLATZ, SPACE 47.—Pharmaceutical preparations of recent introduction to the profession such as Atophan, Hormonal, Medinal, Brovalol, Hegonon, Arbovin, etc., as well as a number of their well-known older specialties will comprise this exhibit. Representatives of the firm will be on hand to answer questions respecting the therapeutic properties and application of these products. The amount of practical knowledge, which can be learned by an examination of this exhibit, will make it worthy of the careful inspection of every physician.

SCHIEFFELIN & CO., SPACE 14.—An exhibit of the biologic products of the Lederle Antitoxin Laboratories, including diphtheria antitoxin, tetanus antitoxin, antistreptococcic serum, vaccine virus and bacterial vaccines. The method employed in the production of these products will be shown in more or less detail, and will be explained by those in charge of the exhibit. The various containers of the products will also be exhibited.

E. R. SQUIBB & SONS, SPACES 81 AND 82.—Will again make a demonstration of their line of tablets and will have a representative exhibit of their large line of pharmaceuticals and chemicals, together with a unique exhibit of the impurities found commonly in the regular market grades of

chemicals, but which are gotten rid of in the Squibb Laboratories by repurification. A visit to the Squibb exhibit should prove of interest to every physician.

HENRY K. WAMPOLE & COMPANY, SPACE 46.—This company will make an exhibit of elegant pharmaceuticals comprising pulverous pills, compressed tablets, fluidextracts, elixirs, effervescent salts, capsules, etc., and directs especial attention to the new things brought out during the past year, and to its ability to produce efficient and elegant products for the physician.

ZEMMER CO., SPACE 38.—An interesting display of their high-class line of tablets, lozenges and other pharmaceutical products. A special feature will be an exhibit of ointments and eye salves; also the demonstration of the solubility and disintegrating qualities of their tablets. Samples of the various products will be given to physicians who visit this booth.

Apparatus, Instruments and Furniture

W. D. ALLISON COMPANY, SPACE 71.—At this booth will be seen several new and attractive styles in automatic examining and treatment tables for office use, instrument cabinets, chairs, etc. Their improved specialist's chair will be one of the principal features also, and these in addition to their well-known standard articles will offer a wide range for selection. The Allison line has been well and favorably known to the profession for many years.

BAUSCH & LOMB OPTICAL CO., SPACE 73.—They will show a line of their newest models of microscopes, microtomes, centrifuges and other laboratory apparatus and supplies for physicians' use. The convertible balopticon will be shown, which projects lantern slides, opaque illustrations and objects and microscopic objects; also the new combined drawing and photomicrographic apparatus which is a most serviceable instrument for general laboratory work.

CHARLES R. BARD, SPACE 80.—A special line of bougies and other instruments manufactured by J. Eynard, Paris, France, for use in urologic practice, is to be demonstrated.

FRANK S. BETZ CO., SPACES 90, 91, 92, 93, 94, AND 95.—This company will make an exhibition of a general line of surgical instruments, special razor-operating knives manufactured by experienced razor makers, nose and throat instruments imported from Vienna, also *x*-ray coils, electrical outfits for general and diagnostic purposes and a variety of artificial legs. The special feature of the exhibit will be the demonstration of several models of pulmotor, which have just been received from Germany.

D. V. BROWN, SPACE 45.—Wholesale Manufacturing Optician. Demonstrations at this booth will be especially interesting and up-to-date. It will doubtless repay the visiting physicians, who are interested in optical work, to examine this exhibit. Trained experts in the optical manufacturing line will be in attendance to explain all new devices and instruments.

BUZZELL-FLANDERS COMPANY, SPACE 114.—Specialties for use by the surgeon, such as Flanders' standard catgut ligatures, also clinical thermometers, hypodermic needles, syringes, etc., will be displayed. The demonstration of modern methods of preparing and sterilizing catgut for surgical use will be both interesting and instructive.

CLARK & ROBERTS COMPANY, SPACE 74.—These manufacturers of surgical furniture will have an interesting exhibit of metal furniture. They will show a new metal table for physicians' office use, which is something unique in this line. They will also exhibit some new steel instrument cabinets for physicians and specialists. These cabinets are of a new design and construction and are very handsome. Also a very attractive Specialist's Outfit will be demonstrated.

DEVILBISS MANUFACTURING COMPANY, SPACE 53.—Their complete line of atomizers, nebulizers and powder blowers for prescription purposes and for physicians' office use will be shown. The value of prophylactic measures is probably more fully appreciated to-day than ever before and as the atomizer plays an important part in connection with this work, physicians will no doubt find this display of interest.

DEZENG-STANDARD COMPANY, SPACES 107 AND 124.—A line of eye, ear, nose and throat instruments will be shown. A new electric lens-measuring and axis-finding instrument will be demonstrated for the first time, also a new electric perimeter having true transilluminated spectral colors. New electrical instruments for examining the nose and ear will also be demonstrated. All of these ideas are new and interesting.

DRAEGER OXYGEN APPARATUS CO., SPACE 111.—The pulmotor which has recently been introduced and is constantly being referred to by the press for its exceptional action in the resuscitation of suspended pulmonary action due to gas poisoning, drowning, etc., will be demonstrated. Physicians have been quick to appreciate the great superiority of the automatic pulmotor over mechanical resuscitation and will undoubtedly be interested in seeing its practical demonstration.

F. A. HARDY & CO., SPACES 39 AND 58.—A complete line of eye, ear, nose and throat surgical instruments—for the most part specialties manufactured by this firm—as well as a number of ophthalmologic specialties, will be exhibited. All instruments on display will be up-to-date and many are of new design. Illustrations and descriptions of many of these will appear in the special Atlantic City edition of the *Harvey Messenger*, which will be distributed at the exhibit.

W. H. HORN & BRO., INC., SPACE 37.—Will exhibit appliances of their own manufacture, consisting of "Bornbro" seamless surgical elastic hosiery, elastic abdominal belts for floating kidney, gastroptosis, abdominal section, relaxation of abdominal muscles, ventral hernia, etc., hard rubber trusses and a line of leather-covered and elastic trusses. The "Truflt" Arch Lift will also be of interest to all practitioners.

JONES OF BINGHAMTON, SPACE 33.—A Bertillon scale, which is especially adapted for physicians' offices, police headquarters, insurance offices, and every place where personal weight is desired, will be demonstrated. It was named after the celebrated originator of the Bertillon system, used in weighing convicts and suspects. Scale is constructed entirely of metal, finished in white enamel, handsomely ornamented; all brass parts heavily nickel plated. It is adapted for all systems of weights and measures.

E. KIRSTEIN SONS COMPANY, SPACE 75.—An exhibit chiefly devoted to the demonstration and display of their latest model eyeglass mounting consisting of a rigid bridge, rigid guard, finger operating mounting which has all the advantages, in the way of adjustment, possible with hoop spring mountings and none of its drawbacks. They will also show their latest spectacle bridge which has two pads carrying the weight of the lenses. In construction, this bridge is entirely different from the saddle-bridge spectacles.

ERNST LEITZ, SPACE 106.—Of particular interest will be the two new Leitz models of physicians' microscopes and their "dark field" illuminating outfit—so necessary with the Wassermann test. Their new form Edinger apparatus for the drawing and projection of microscopic and lantern slides is of especial scientific value. The large microphotographic apparatus will also be exhibited. There will also be shown stand A equipped with the new Leitz apochromats, for use in scientific research. The Leitz double demonstration eyepiece with pointer will be an added attraction; also various models of microtomes, etc.

CHAS. LENTZ & SONS, SPACE 72.—An extensive exhibit of many newly-devised instruments will be completed for the occasion and the great diversity of apparatus shown will make this display of interest to all branches of the profession. Especial attention will be given to the electric exhibit, and the apparatus shown will include those in every-day use as well as those for more advanced electric work.

MCINTIRE, MAGEE & BROWN CO., SPACE 77.—Will exhibit a complete line of ophthalmologic equipment including some of the latest eye-testing instruments and improved models of popular accessories, such as the Thorington Retinoscope, with fixation letters and the mirror set so as to insure durability of the silvering, also improved models of this firm's Jackson Cross Cylinder and Powell Condenser. The latest improved kindergarten test card, as devised by Dr. W. Reber, will have its initial exhibit.

E. B. MEYROWITZ, INC., SPACE 50.—A complete line of apparatus and instruments for eye, ear, nose and throat work will be shown. Special reference will be made to the Schiötz tonometer, Marple electric ophthalmoscope, a new trial frame, 1911 model ophthalmometer, Yankauer's eustachian-tube instruments, Mosher's mastoid transilluminator, Coakley's antrum perforator, and Kahler-Bruening bronchoscopic apparatus. In the *x*-ray department, a special tube stand, portable high frequency outfit and plate marking devices will be demonstrated.

V. MUELLER & CO., SPACES 119 AND 120.—This well-known firm, as in past years, will exhibit a complete line of surgical instruments, cystoscopes, bronchoscopes, esophagoscopes, etc. The instrument department will be especially well represented. A number of new instruments which have been placed on the market during the past year will be shown. In addition the latest European surgical instruments, illuminating apparatus,

V. 58
1912

etc., will be exhibited, making a display which no visitor should fail to see. The exhibit will be in charge of Mr. V. Mueller.

OHIO CHEMICAL AND MFG. CO., SPACE 54.—The Ohio Monovalve will be exhibited. This is said to be the first instrument designed by which gas pressure is automatically reduced and controlled. After the operation is started, one valve enables the anesthetist to give pure nitrous oxid, nitrous oxid in combination with oxygen or pure oxygen. When closed the flow of gas from the cylinders automatically stops.

PHILADELPHIA SURGICAL SPECIALTY CO., SPACE 127.—A practical and unique surgical appliance which has been called the "Simplex Surgeon" will be the feature of this exhibit. This outfit is but ½ inch in diameter and 3 inches long, yet it contains straight and curved vistoury, hemostat, forceps, eye spud, probe applicator, ear spoon, curet, two handles, needles, silk, etc. It is composed entirely of metal, hence easily sterilized.

PHYSICIANS' SUPPLY CO., SPACE 76.—Will exhibit a full line of surgical instruments, including all the latest patterns in nose, throat and general operating; blood-pressure apparatus, cystoscopes and pharyngoscopes and other electric-lighted instruments.

HARVEY R. PIERCE CO., SPACE 60.—A representative line of surgical instruments, especially those to be used in bone surgery, will be displayed by this firm. They will also demonstrate the Ohio monovalve anesthesia apparatus for the administration of nitrous oxid alone or in combination with oxygen, ether or chloroform.

RANDALL-FAICHNEY CO., SPACE 51.—An extensive display of hypodermic syringe outfits and "Harvard" clinical thermometers will be the interesting features of this exhibit. The various steps in maintaining a higher standard of testing and grading clinical thermometers are to be demonstrated. A line of oil- and grease-guns for automobiles will also be exhibited.

ROBERTSON MFG. CO., SPACE 64.—Gold medal spraying and nebulizing outfits are to be the features of this exhibit. It is said that these inexpensive outfits are growing in favor with the profession because they are claimed to do the same work as the larger cumbersome, complicated and expensive machines and require less labor and are less liable to get out of order.

TAYLOR INSTRUMENT COMPANIES, SPACES 40, 41, 56 AND 57.—At this exhibit a staff of trained medical men will demonstrate the use of the "Tycos" sphygmomanometer in general practice. The demonstrations will cover the taking of systolic, diastolic and pulse-pressure. New booklets and other literature on the relation of blood-pressure in diagnosis of acute and chronic diseases will be distributed. Besides the "Tycos" sphygmomanometer this exhibit will include a display of "Tycos" fever thermometers.

TETER MANUFACTURING CO., SPACE 36.—The well-known improved Teter apparatus for administering nitrous oxid and oxygen and other general anesthetics will be demonstrated. The Teter improved apparatus embodies the scientific principles for making it possible to use nitrous oxid and oxygen as the routine anesthetic in general surgery. These principles are, even flow of gases, rebreathing, positive interpulmonary pressure, and delivery of the gases to the patient warmed to about 90 F.

MICHAEL WOOLF, SPACE 55.—High quality prescription work will be exhibited; also a number of optical specialties such as always have attracted the interest of oculists. They will demonstrate their new skioptometer which eliminates the use of trial frames and the spherical part of the trial case, the particular feature being the extremely low cost of the apparatus.

Apparatus—Electric

CAMPBELL ELECTRIC COMPANY, SPACE 115.—The leading features claimed for the Campbell coil are simplicity of handling, durability of construction and compactness. The latest model gives the operator the use of eight currents, including a powerful *x*-ray current. Some of the expedients adopted for the protection both of operator and coil are the pilot light, which indicates any passage of current into coil, and the protected spark-gap.

ELECTRO-SURGICAL INSTRUMENT COMPANY, SPACE 44.—Instruments made by this firm are constructed after the designs and suggestions of eminent physicians based on their practical experience. The complete line of electrically lighted diagnostic and operative instruments which will be exhibited will include among other instruments the Young improved urethroscope, Braasch urethroscope and median bar excisor, Lynch proctosigmoidoscope, Bassler sigmoidoscope, Mosher mastoid transilluminator, Holmes nasopharyngoscope. Controllers and socket cautery transformers will also be shown.

MACALASTER-WIGGIN CO., SPACE 108.—Will show a splendid assortment of *x*-ray tubes and accessories in general. This firm was the first to bring out the tungsten target tubes, and they will make a special demonstration of this tube. The tungsten metal has only recently been obtainable, and it has revolutionized *x*-ray tube building, and has been a great step in advance in *x*-ray photography.

MCINTOSH BATTERY & OPTICAL CO., SPACE 15.—The exhibit will consist of improved wall plates with dial current selector, while special stress will be laid on the McIntosh polysine generator, a highly perfected sinusoidal machine. Portable high-frequency coils of great durability will be another feature of this interesting exhibit. The McIntosh No. 4 transformer, an eye, ear, nose and throat specialist's outfit, will interest practitioners working along those lines.

PITTSBURGH ELECTRIC SPECIALTIES CO., SPACE 23.—Will exhibit the medico lamp, designed for use by physicians and surgeons in major and minor operations and for diagnostic purposes. It consists practically of a point light source, two condensing lenses, one focusing lens, and an iris diaphragm. A clear white field of very high intensity is obtained. The size of the field can be regulated to any size desired.

SCHEIDEL-WESTERN *X*-RAY COIL CO., SPACES 62 AND 63.—Will have a scientific display of advanced therapeutic apparatus for radiographic work of all kinds. They will demonstrate the latest interrupterless machine with which the fastest negatives have been made; also their combination *x*-ray treatment outfits, portable outfits, Wheatstone stereoscope, plate changers, protection tube stand and special combination table. In addition to this complete line of electrotherapeutic appliances, high frequency apparatus, cauteries, diagnostic and treatment lights, vibrators, headlights, etc., which were manufactured by the Sam J. Gorman Company, will also be shown as this company is now consolidated with the Scheidel-Western *X*-Ray Coil Co.

VICTOR ELECTRIC CO., SPACES 84, 85, 86, 87, 97, 98, 99 and 100.—A complete show-room, with not a single electrode or accessory missing, has been planned for this meeting, and with both direct and alternating currents available the physician will be able to witness a complete demonstration of every product of the Victor factory. Progress in electromedicine and electrodiagnosis is rapid nowadays and the Victor Electric Company, as usual, will undoubtedly be found right up to the minute.

WAITE & BARTLETT MFG. CO., SPACE 29.—Several new devices in electrotherapeutics will be demonstrated. This firm has recently brought to the attention of the profession a silent solace interrupterless coil with self-starting synchronous motor and a patented automatic time switch, which is said to allow perfect control at any distance.

WAPPLER ELECTRIC MFG. COMPANY, INC., SPACES 109, 110, 121 and 122.—In their display of electromedical and surgical apparatus, this company will show many new and radical features. All their cystoscopes have the brilliant lens system, showing the correct image picture. Special attention is called to the various combination models of the Brown-Buerger cystoscope, and also their small diagnostic cystoscopes and urethroscopes. The brilliant lens system has been adopted for all their diagnostic instruments. They will exhibit also the King model interrupterless apparatus.

Food and Milk Preparations

WALTER BAKER & CO., SPACE 88.—Cocoa will be served to all members of the Association attending the meeting with the compliments of the firm. The exhibit will include a complete line of their cocoa and chocolate preparations. The booth occupied by this firm is very elaborate, being constructed entirely of plate glass and white enamel wood work.

BASS ISLANDS VINEYARDS COMPANY, SPACE 24.—Visitors are cordially invited to look up the exhibit of this company and try their Golden Catawba Grape Juice. This is a clear amber-colored grape juice possessing valuable nutritive properties and original flavor. It is recommended from a medicinal point of view in cases of enfeebled digestive organs on account of the small percentage of tannin. This company also produces dark concord grape juice, and all their products are guaranteed absolutely pure and unadulterated with no added sugar.

BORDEN'S CONDENSED MILK COMPANY, SPACES 68 AND 69.—Will exhibit their Malted Milk and will call attention to its extreme solubility and its freedom from excessive sweetness

and the malted milk "tang." They will dwell on its merits as a non-irritating, non-fermenting, easily digested and satisfying food. They will also display their Eagle Brand Condensed Milk, and will present this product as a proof of the excellence of all preparations put up by them.

HORLICK'S MALTED MILK CO., SPACE 5.—This firm will show Horlick's Malted Milk and urge its use as an easily digested food product in powder form, prepared from pure fresh cow's milk, combined with the extracts of malt, barley and wheat, the starch of which has all been converted by the action of the diastase of the malt, and ready for immediate use by simply dissolving in hot or cold water; uniform and reliable, manufactured under ideal sanitary conditions, with the experience, methods and apparatus evolved through work of over a century in this line.

MEAD JOHNSON & COMPANY, SPACE 9.—An exhibit of their Dextri-Maltose (pure maltose and dextrin in about equal parts) will be made. This is a nearly white, granulated product, in appearance somewhat resembling cane sugar, and is said to be the only preparation of this kind thus far manufactured in the U. S. It is non-proprietary and is a practical duplicate of the malt-sugar and dextrin preparations made in Germany, where they are largely used by pediatrists, especially those who employ the Finkelstein method of infant feeding. This firm will also exhibit interesting examples of the raw materials from which vegetable ferments are obtained.

MELLIN'S FOOD COMPANY, SPACE 1.—Will exhibit their product and give, this year, especial attention to the much discussed subject, carbohydrates in infant feeding. Representatives of the company will be in readiness to furnish visiting physicians the analysis of Mellin's Food, showing the relative amount of maltose and dextrin in their product, and to offer evidence to substantiate their claim that the carbohydrate content of Mellin's Food answers the requirements for a sugar in infant feeding.

SMITH, KLINE & FRENCH CO., SPACE 17.—The composition of Eskay's Food in its various stages of manufacture, as well as the finished product, will be displayed. A trained nurse in attendance will prepare and serve Eskay's Food as intended for infant or adult feeding. Test tubes showing the action of gastric juice on the curd of cow's milk and how this curd is modified by the addition of Eskay's Food will be an interesting feature. A souvenir will be given all physicians visiting their booth.

WELCH GRAPE JUICE COMPANY, SPACES 32 AND 65.—"The National Drink," as this company terms its product, will be served to the attending delegates from a handsome booth, overhung with vines laden with luscious-looking bunches of grapes. It is reported that the lighting of the booth will be a special feature. As heretofore, members of the American Medical Association are invited to make use of their demonstrating store at 1217 Boardwalk, where directories, 'phones, stationery, hotel and railroad guides are for their convenience.

Artificial Limbs and Supportive Appliances

AMBULATORY PNEUMATIC SPLINT MFG. CO., SPACE 18.—The exhibit will consist of a practical, scientific demonstration of the application and use of the Ambulatory Pneumatic Splint for the reduction, comfortable and successful treatment of all fractures of the lower limbs, including those of the hip, with the patient in bed or walking about. "Ambumatic" washable abdominal supporters and orthopedic braces will be explained and shown for every condition under the direction of Mr. and Mrs. Franklin I. Sæmann.

ANATOMIK FOOTWEAR COMPANY, SPACE 101.—An exhibit of men's, women's and children's Anatomik shoes for the relief of mild cases of flat foot and for the prevention of foot troubles. Anatomik shoes are made on a special last devised by Dr. Harlan P. Cole of New York, who will be glad to meet physicians and explain the features of the special shoes made by this company for bad cases of flat foot and for various forms of talipes.

BERGER BROS., SPACE 30.—The Spencer Abdominal Supporting Corset will be the interesting feature of this exhibit. Supports for floating kidney, visceral ptoses, after surgical operations, etc., as well as maternity corsets will be shown on lay figures. An experienced fitter will demonstrate the supports and explain to physicians who prefer to have these appliances adjusted under their personal supervision, the simple method of taking measurements.

CARNES ARTIFICIAL LIMB COMPANY, SPACE 34.—Will have a practical demonstration by men wearing the Carnes arm and will show an artificial bending elbow (for above-elbow amputation) a rotating and flexing wrist and an automatic finger movement which enables them to light a cigar, write and feed themselves. The arm is operated independently from the shoulder.

FRANKLIN WARDROBE CO., SPACE 10.—An abdominal belt, a surgical corset, a maternity corset and a fashion corset will be the main features of this exhibit. A trained nurse will have charge of the booth and will make practical demonstration, showing the peculiar value of these supports as an aid in the treatment of Glenard's disease and associated conditions of visceral prolapse.

Mineral Waters

APOLLINARIS AGENCY COMPANY, SPACE 19.—Apollinaris water, which is mildly alkaline and naturally effervescent will be exhibited. It is bottled only at the Apollinaris spring, Neuenahr, Germany, and only with its own natural gas, as stated on the label. The same company will also exhibit "Apenta," the Hungarian natural aperient water, which is noted for its well proportioned content of magnesium sulphate and sodium sulphate.

CONDAL-RUBINAT COMPANY, SPACE 126.—Will exhibit their purgative water from the Condal springs of Rubinat (Spain). It is said to be a mildly alkaline water containing a large proportion of sodium sulphate and a relatively smaller proportion of magnesium sulphate in solution.

NATIONAL WATER CO., SPACE 59.—A display will be made of White Rock and Still Rock waters, both of which are daily growing in popularity with the medical profession. Representatives Westveer and Heath will be there to greet the members of the American Medical Association and to demonstrate the superiority of their products.

Sanatoriums

MUDLAVIA, KRAMER, IND., SPACE 67.—For the benefit of physicians who have never visited Mudlavia this company will maintain an exhibit showing in pictorial detail their special therapeutic agent, the Mudlavia Bath. Beginning with a view of the mud deposit in the natural state, the various steps in the process to completion of the bath will be shown; likewise the buildings and grounds with their special equipment for maintaining a high-grade sanatorium.

SAN ANTONIO TENT COLONY, SAN ANTONIO, TEX., SPACE 118.—Will consist of a rest room, model of cottage used, various photographs of the institution, and demonstration of the equipment and methods of treatment used.

Miscellaneous

DEIMEL LINEN-MESH SYSTEM CO., SPACE 79.—The well-known Dr. Deimel underwear which was introduced some eighteen years ago by Dr. Henry L. Deimel of California, will be displayed. Sample garments of the different weights as well as the latest styles of summer garments will be exhibited.

JOHNSON & JOHNSON, SPACE 16.—An attempt will be made to show the entire process in the manufacture of ligatures. The steps in the preparation of sheep's intestines, the twisting processes and also process of hardening or chromicizing catgut will be explained in part by the material and in part photographically and diagramatically. Methods of sizing and testing tensile strength of surgical ligatures, its sterilization and bacteriological tests will also be described in detail.

SOUTHERN ASEPTIC COTTON CO., SPACE 61.—This exhibit will be interesting and instructive. It will show the various steps in the preparation and purification of absorbent cotton under an exclusive German process, and also the purification and absorbent qualities of gauze under the "Rothe Process." From this display physicians will secure many valuable and practical ideas and will be able to apply these useful products more intelligently in routine surgical work.

MILLER RUBBER CO., SPACE 42.—This firm will exhibit a complete line of Miller atomizers, the celebrated Miller surgeon's gloves and finger cots and other surgical specialties.

PHYSICIANS' RECORD CO., SPACE 113.—This company will demonstrate a system for keeping complete accounts and case records. The device exhibited has become a standard in its line. History sheets covering different classes of cases, charts, complete analysis forms, filing devices of various styles, etc., will constitute the display. The complete record system made up by the Physicians' Record Company aims to simplify the recording end of the physician's work.

WEISSFELD BROS., SPACE 66.—Hospital wearing apparel, physicians' coats, surgeons' gowns, duck suits, smoking jackets, bath robes, dressing gowns, etc., will be displayed.

V. 58
1912